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Letter of Transmittal

Attention: Ms. Terese Van Donsel
(USEPA) Date: September 9, 2020

Mr. Brian Conrath (IEPA)

Hamilton Sundstrand
Corporation Plants 1/2 Facility
Southeast Rockford
Groundwater Contamination
Superfund Site
2421 11th Street
Rockford, Illinois 61104

Project reference: ILD981000417 Project number: 60627752

We are sending you the following:

Number of originals:	Number of copies:	Description:
1	1	2020 Second Quarter GMZ Monitoring and System Performance Report

Enclosed please find the 2020 Second Quarter Annual GMZ Monitoring and System Performance Report for Hamilton Sundstrand Corporation Plant 1/2 Facility, Southeast Rockford Groundwater Contamination Superfund Site, Rockford, Illinois.

Thank You.

Peter Hollatz, P.E.

cc: Mr. John Wolski, Raytheon Technologies Corporation
 Mr. Jon Alberg, AECOM
 Project File



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Prepared for:
Hamilton Sundstrand Corporation
Rockford, IL

Prepared by:
AECOM
Warrenville, IL
60627752
September 9, 2020

Second Quarter 2020 GMZ Monitoring and System Performance Report

Hamilton Sundstrand Corporation Plant 1/2 Facility
Southeast Rockford Groundwater Contamination
Superfund Site
2421 11th Street
Rockford, IL 61104
ILD 981000417



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September 9, 2020

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Remedial Project Manager
U.S. EPA Region 5 (SR-6J)
Superfund Division
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Chicago, Illinois 60604

Mr. Brian Conrath
National Priorities List Unit
Federal Sites Remediation Section
Division of Remediation Management
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1021 N. Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

Subject: Second Quarter 2020 GMZ Monitoring and System Performance Report
Hamilton Sundstrand Corporation Plant 1/2 Facility
Southeast Rockford Groundwater Contamination Superfund Site
2421 11th Street
Rockford, Illinois 61104
ILD981000417
AECOM Project No. 60627752

Dear Ms. Donsel and Mr. Conrath:

This Quarterly Groundwater Management Zone (GMZ) Monitoring and System Performance Report has been prepared by AECOM Technical Services Inc. (AECOM) on behalf of Hamilton Sundstrand Corporation (HSC). In accordance with the approved March 2007 Operation, Maintenance, and Monitoring Plan (OM&M Plan) and the United States Environmental Protection Agency (EPA) letter dated April 15, 2011, providing approval for combining project reporting documents, this report contains a summary of the following: 1) GMZ leachate monitoring data; 2) the Phase 1 and Phase 2 air sparge/soil vapor extraction (AS/SVE) system performance data; 3) the Phase 1 and Phase 2 AS/SVE system process air analytical data; 4) GMZ wells that contain contaminants of concern (COCs) above Preliminary Remediation Goals (PRGs); and 5) Quarterly Progress Report for Third Quarter 2020.

As approved in the April 15, 2011 letter from Timothy Drexler (EPA), interpretation of collected leachate quality and system performance data will be included in the Annual GMZ Monitoring and System Performance Report submitted in March of the subsequent year. This quarterly report provides the current environmental data including: tables and figures summarizing the results of second quarter 2020 GMZ monitoring and AS/SVE system performance data, supporting field data sheets and laboratory analytical reports, and the Quarterly Progress Report covering the period from June 1, 2020 to August 31, 2020.

The objective of AS/SVE system operation is to treat leachate-impacted groundwater at the HSC Plant 1/2 (Facility) property. The implemented remedy was specifically targeted to address an area of the Facility where COCs were originally present in leachate at concentrations that were two or more orders of magnitude greater than their PRGs. Though the treatment area was not fully defined when the 2002 Record of Decision (ROD) for Operable Unit 3 (OU3) was issued, the entire Facility was identified/defined in the ROD as a “source location” within the larger established “Source Area 9/10” (Area 9/10) based on data collected prior to the ROD¹. The ROD further required that the Facility remedy include the establishment of a GMZ for this “source location” (the Facility) whose volume was defined by the Facility property boundaries and a vertical limit of 45 feet below ground surface. Two Facility GMZs, GMZ 1 (Facility property north of railroad tracks) and GMZ 2 (Facility property south of railroad tracks), were approved by the Illinois EPA in 2008. Monitoring wells within the Facility GMZs are routinely sampled, and the leachate analytical results are compared to OU3 PRGs to evaluate the effectiveness of the remedy. PRGs for OU3 are federal Maximum Contaminant Levels (MCLs).

During the second quarter 2020 reporting period, the following six GMZ well locations along the Facility boundary contained COCs at concentrations above PRGs:

GMZ Monitoring Well ID	COC Concentrations > PRG (Increase (+) or Decrease (-) or Same (=) from Previous Quarter)
GMZ01	PCE (-)
SMW04	PCE (=)
SMW08	cis-1,2 DCE (+), PCE (-)
SMW19	TCE (+)
PMW01	PCE (-)
PMW02	PCE (-)

Trichloroethene (TCE), Tetrachloroethene (PCE), cis-1,2 Dichloroethene (cis-1,2 DCE)

The above-noted decreases/increases in concentrations represent a relative change in COC concentrations (above the PRG) between the two most recent quarters of data. Such changes should not be viewed as an indication of a trend without further statistical evaluation.

Although still exceeding the PRGs, the GMZ wells along the western Facility property line continue to demonstrate stable or decreasing trends or no trends with degradation to daughter products from parent COCs apparent at several wells. The development of Alternative Cleanup Levels (ACLs) along the western Facility property line will represent the maximum allowable concentration at the

¹ See EPA Superfund Record of Decision Southeast Rockford Ground Water Contamination, 2002. EPA/ROD/R05-02/077 2002.

Facility boundary that will not result in a COC exceedance of a PRG at the Area 9/10 boundary downgradient of the Facility.

Achieving ACLs at the downgradient western Facility property line will demonstrate that the Facility is protective of human and environmental receptors at the downgradient Area 9/10 boundary. The downgradient Area 9/10 boundary is located at Harrison Avenue to the south and 6th Street to the west.

A Work Plan for the development of ACLs has been prepared by AECOM on behalf of HSC. The Work Plan was prepared as agreed following the meeting between HSC, AECOM, EPA and the Illinois EPA at the HSC Facility on May 8, 2017. The Work Plan was submitted to EPA and Illinois EPA on August 11, 2017. A letter dated May 29, 2019 was submitted to EPA and Illinois EPA requesting a review and approval of the Work Plan. Comments on the Work Plan provided by EPA and Illinois EPA were provided in a letter dated September 9, 2019. A response to the EPA September 9, 2019 comment letter was submitted on March 13, 2020.

The formulation of ACLs is consistent with the attainment of the OU3 ROD Remedial Action Objective (RAO) for groundwater specified in the ROD² and the objectives analysis/Remedial Action Process Flow Diagram (RAPFD) developed and approved for use by the EPA and Illinois EPA at the Facility. The RAPFD, which outlines the use of objective analysis in formulating ACLs that are proposed for the western Facility property line, is provided in the Statement of Work attached to the HSC Facility Consent Decree³ and included in subsequent approved Remedial Action Work Plan.

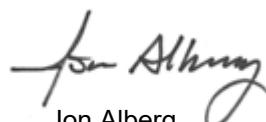
Please contact either of the undersigned with any questions you may have on the information provided.

Prepared by:



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cc: Mr. John Wolski – Raytheon Technologies Corporation

² The OU3 ROD RAO for groundwater media is to: "Prevent the further migration of contamination from the source area that would result in degradation of site-wide groundwater or surface water to levels in excess of state or federal standards, or that pose a threat to human health or the environment."

³ See the Statement of Work in Appendix C of the Consent Decree between Hamilton Sundstrand Corporation and the United States Environmental Protection Agency (Civil Action Number 08 C 50129), Section II.D.2, *Implementation of Remedial Action and Attainment of Performance Standards* (pages 9 and 10).

Attachments:**Tables**

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Appendices

- Appendix A Second Quarter 2020 GMZ and Performance Monitoring Well Analytical Data
Appendix B Second Quarter 2020 Effluent Air Laboratory Analytical Reports
Appendix C Second Quarter 2020 Phase 1/Phase 2 AS/SVE System Operations Data Sheets
Appendix D Second Quarter 2020 Leachate Sampling Data Sheets
Appendix E Third Quarter 2020 Progress Report

Tables

Table 1
Third Quarter 2019 to Second Quarter 2020 Leachate Elevations
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

Well ID	Top of Casing Elevation (ft)	Depth to Leachate (ft BTOC)	Leachate Elevation (ft AMSL)						
		8/5/2019		12/10/2019		2/11/2020		5/11/2020	
MW07FGA	727.49	23.70	703.79	23.74	703.75	24.14	703.35	23.89	703.60
MW203	728.58	24.39	704.19	24.49	704.09	24.90	703.68	24.61	703.97
SMW01	729.71	26.67	703.04	26.70	703.01	27.11	702.60	26.82	702.89
SMW02	726.77	23.06	703.71	22.15	704.62	23.53	703.24	23.18	703.59
SMW04	728.51	25.89	702.62	25.96	702.55	26.41	702.10	26.05	702.46
SMW08	728.81	26.10	702.71	26.16	702.65	26.60	702.21	26.27	702.54
SMW19	728.49	24.68	703.81	24.74	703.75	25.12	703.37	24.89	703.60
SMW20	727.69	24.95	702.74	25.02	702.67	25.50	702.19	25.15	702.54
SMW21	727.25	24.47	702.78	24.51	702.74	24.99	702.26	24.63	702.62
GMZ01	731.41	28.67	702.74	28.73	702.68	29.15	702.26	28.83	702.58
GMZ02	728.76	26.21	702.55	26.29	702.47	26.79	701.97	26.40	702.36
GMZ03	728.22	25.60	702.62	25.67	702.55	26.14	702.08	25.78	702.44
GMZ04	726.84	23.80	703.04	23.85	702.99	24.31	702.53	23.97	702.87
BGW01	728.19	24.46	703.73	24.62	703.57	25.00	703.19	24.75	703.44
BGW02	728.81	24.90	703.91	25.02	703.79	25.41	703.40	25.14	703.67
BGW03	728.96	25.02	703.94	25.08	703.88	25.42	703.54	25.21	703.75
RAMW01	728.91	26.20	702.71	26.26	702.65	26.74	702.17	26.37	702.54
RAMW02	728.90	26.05	702.85	26.12	702.78	26.59	702.31	26.23	702.67
RAMW03	728.71	25.85	702.86	25.93	702.78	26.39	702.32	26.03	702.68
RAMW04	728.80	25.67	703.13	25.75	703.05	26.18	702.62	25.88	702.92
RAMW05	727.65	24.57	703.08	24.62	703.03	25.06	702.59	24.72	702.93
RAMW06	727.64	24.58	703.06	25.65	701.99	25.10	702.54	24.75	702.89
RAMW07	732.20	29.09	703.11	29.14	703.06	29.58	702.62	29.23	702.97
RAMW08	728.45	25.17	703.28	25.28	703.17	25.68	702.77	25.37	703.08
PMW01	728.88	26.29	702.59	26.37	702.51	26.87	702.01	26.49	702.39
PMW02	728.88	26.32	702.56	26.38	702.50	26.83	702.05	26.48	702.40
Ave. GW Elev. (ft AMSL)		703.12		703.05		702.61		702.94	

Notes:

NM = Not monitored

ft = feet

ft BTOC = feet below top of casing

ft AMSL = feet above mean sea level

All site well top of casing elevations re-surveyed on May 24, 2011.

RAMW04 riser was lowered due to ice damage that occurred during the 2013 winter. Well was resurveyed on July 1, 2013.

Table 2
Third Quarter 2019 to Second Quarter 2020 Leachate Analytical Results - GMZ Wells
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

				Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	1,1,1- Trichloroethane	1,1,2- Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride
Preliminary Remediation Goals (PRG) ^A				0.005 _b ^a	0.005 _b ^a	0.007 _{b,c} ^a	0.7 ^a	0.005 _b ^a	0.07 _b ^a	0.1 _b ^a	0.2 _{b,c} ^a	0.005 _b ^a	0.7 _b ^a	0.005 _b ^a	1.0 _b ^a	0.002 _b ^a
Well	Sample ID	Sample Date	Sample Type	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
GMZ01	HS SER-GMZ01-080619	6-Aug-19		0.0011	0.0020 U	0.0010 U	0.0090	0.0010 U	0.0013	0.0010 U	0.0023	0.0010 U	0.0010 U	0.0202 ^A	0.0010 U	0.0010 U
	HS SER-GMZ01-121019	10-Dec-19		0.0010 U	0.0020 U	0.0010 U	0.0099	0.0010 U	0.0088	0.0010 U	0.00062 J	0.0010 U	0.0010 U	0.0086 ^A	0.0010 U	0.0010 U
	HS SER-GMZ01-021220	12-Feb-20		0.0012	0.0020 U	0.0010 U	0.0092	0.0010 U	0.0021	0.0010 U	0.0024	0.0010 U	0.0010 U	0.0191 ^A	0.0010 U	0.0010 U
	HS SER-GMZ01-051220	12-May-20		0.0010	0.0020 U	0.0010 U	0.0084	0.0010 U	0.0029	0.0010 U	0.0017	0.0010 U	0.0010 U	0.0105 ^A	0.0010 U	0.0010 U
GMZ02	HS SER-GMZ02-080719	7-Aug-19		0.0010 U	0.0020 U	0.0010 U	0.0012	0.0010 U	0.0010 U	0.0010 U	0.0014	0.0010 U	0.0010 U	0.0011	0.0010 U	0.0010 U
	HS SER-GMZ02-121219	12-Dec-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ02-021320	13-Feb-20		0.0010 U	0.0020 U	0.0010 U	0.00062 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ02-051320	13-May-20		0.0010 U	0.0020 U	0.0010 U	0.00071 J	0.0010 U	0.0010 U	0.0010 U	0.00078 J	0.0010 U	0.0010 U	0.0011	0.0010 U	0.0010 U
GMZ03	HS SER-GMZ03-080719	7-Aug-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-DUP01-080719	7-Aug-19	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-121219	12-Dec-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-121219	12-Dec-19	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-021320	13-Feb-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-DUP01-021320	13-Feb-20	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ03-021321	13-May-20		0.0010 U	0.0020 U	0.0010 U	0.00068 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-DUP01-051320	13-May-20	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	0.00064 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
GMZ04	HS SER-GMZ04-080619	6-Aug-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ04-121219	12-Dec-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ04-021220	12-Feb-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-GMZ04-051220	12-May-20		0.0010 U	0.0020 U	0.0010 U	0.0063	0.0010 U	0.0010 U	0.0010 U	0.0025	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
MW07FGA	HS SER-MW07FGA-080619	6-Aug-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-MW07FGA-121219	12-Dec-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-MW07FGA-021220	12-Feb-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00094 J	0.0010 U	0.0010 U
	HS SER-MW07FGA-051220	12-May-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0012	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
MW203	HS SER-MW203-080619	6-Aug-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0043	0.0010 U	0.0010 U
	HS SER-MW203-121219	12-Dec-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0029	0.0010 U	0.0010 U
	HS SER-MW203-021320	13-Feb-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0041	0.0010 U	0.0010 U
	HS SER-MW203-051220	12-May-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0025	0.0010 U	0.0010 U
SMW01	HS SER-SMW01-080619	6-Aug-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0013	0.0010 U	0.0010 U
	HS SER-SMW01-121019	10-Dec-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011	0.0010 U	0.0010 U	0.0025	0.0010 U	0.0010 U
	HS SER-S															

Table 2
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Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

				Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	1,1,1- Trichloroethane	1,1,2- Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride
Well	Sample ID	Sample Date	Sample Type	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
SMW08	HS SER-SMW08-080619	6-Aug-19		0.0013	0.0020 U	0.0010 U	0.0106	0.0010 U	0.113 ^A	0.00170	0.0041	0.0010 U	0.0010 U	0.0346 ^A	0.0010 U	0.0010 U
	HS SER-SMW08-121019	10-Dec-19		0.0013	0.0020 U	0.00070 J	0.0087	0.0010 U	0.0707 ^A	0.00058 J	0.0034	0.0010 U	0.0010 U	0.0310 ^A	0.0010 U	0.0010 U
	HS SER-SMW08-021220	12-Feb-20		0.0015	0.0020 U	0.00066 J	0.0066	0.0010 U	0.0320	0.0010 U	0.0041	0.0010 U	0.0010 U	0.0390 ^A	0.0010 U	0.0010 U
	HS SER-SMW08-051220	12-May-20		0.0016	0.0020 U	0.0013	0.0145	0.0010 U	0.144 ^A	0.00078 J	0.0038	0.0010 U	0.0010 U	0.0285 ^A	0.0010 U	0.0010 U
SMW19	HS SER-SMW19-080619	6-Aug-19		0.0101 ^A	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.00074 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW19-121219	12-Dec-19		0.0093 ^A	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011	0.0010 U	0.0010 U
	HS SER-SMW19-021220	12-Feb-20		0.0085 ^A	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.00067 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW19-051220	12-May-20		0.0110 ^A	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.00059 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0012	0.0010 U	0.0010 U
SMW20	HS SER-SMW20-080719	7-Aug-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW20-121219	12-Dec-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW20-021320	13-Feb-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW20-051320	13-May-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
SMW21	HS SER-SMW21-080619	6-Aug-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0019	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW21-121219	12-Dec-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0018	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW21-021220	12-Feb-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0023	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-SMW21-051220	12-May-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00077 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
PMW01	HS SER-PMW01-080719	7-Aug-19		0.00068 J	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0022	0.0010 U	0.0010 U	0.0032	0.0010 U	0.0010 U
	HS SER-PMW01-121319	13-Dec-19		0.00074 J	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0020	0.0010 U	0.0010 U	0.0034	0.0010 U	0.0010 U
	HS SER-PMW01-021320	13-Feb-20		0.00068 J	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0018	0.0010 U	0.0010 U	0.0068 ^A	0.0010 U	0.0010 U
	HS SER-PMW01-051320	13-May-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0013	0.0010 U	0.0010 U	0.0057 ^A	0.0010 U	0.0010 U
PMW02	HS SER-PMW02-080719	7-Aug-19		0.00090 J	0.0020 U	0.0010 U	0.0048	0.0010 U	0.0056	0.0010 U	0.0022	0.0010 U	0.0010 U	0.0130 ^A	0.0010 U	0.0010 U
	HS SER-PMW02-121319	13-Dec-19		0.00072 J	0.0020 U	0.0010 U	0.0025	0.0010 U	0.0036	0.0010 U	0.0023	0.0010 U	0.0010 U	0.0134 ^A	0.0010 U	0.0010 U
	HS SER-PMW02-021320	13-Feb-20		0.00081 J	0.0020 U	0.0010 U	0.0038	0.0010 U	0.0064	0.0010 U	0.0015	0.0010 U	0.0010 U	0.0124 ^A	0.0010 U	0.0010 U
	HS SER-PMW02-051320	13-May-20		0.0010 U	0.0020 U	0.0010 U	0.0026	0.0010 U	0.0058	0.0010 U	0.0019	0.0010 U	0.0010 U	0.0062 ^A	0.0010 U	0.0010 U

Notes:

PRG Preliminary Remediation Goals (PRGs) from the Record of Decision (ROD)

b,c Oral Reference Dose and/or Reference Concentration under review by USEPA. Listed values subject to change.

^A Class 1 - Groundwater Remediation Objectives

Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for

Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.

c Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for

Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.

15.2 Concentration was detected but did not exceed applicable standards.

* LCS or LCSD exceeds the control limits

n/v No standard/guideline value.

B The analyte was detected in the method, field and/or trip blank.

- Parameter not analyzed / not available.

H Sample was prepped or analyzed beyond the specified holding time

mg/L milligrams per liter

J Indicates estimated value.

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Table 3
Third Quarter 2019 to Second Quarter 2020 Leachate Analytical Results - Performance Wells
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

				Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride
Preliminary Remediation Goals (PRG) ^A				0.005 ^A _c	0.005 ^A _c	0.007 ^A _{b,c}	0.7 ^A	0.005 ^A _c	0.07 ^A _c	0.1 ^A _c	0.2 _{b,c} ^A	0.005 ^A _c	0.7 ^A _c	0.005 ^A _c	1.0 ^A _c	0.002 ^A _c
Well	Sample ID	Sample Date	Sample Type	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RAMW01	HS SER-RAMW01-080719	7-Aug-19		0.00086 J	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0011	0.0010 U	0.0010 U	0.0038	0.0010 U	0.0010 U
	HS SER-RAMW01-121219	12-Dec-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00061 J	0.0010 U	0.0010 U	0.0027	0.0010 U	0.0010 U
	HS SER-RAMW01-021420	14-Feb-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00056 J	0.0010 U	0.0010 U	0.0033	0.0010 U	0.0010 U
	HS SER-RAMW01-051420	14-May-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0014	0.0010 U	0.0010 U
RAMW02	HS SER-RAMW02-080719	7-Aug-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW02-121219	12-Dec-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW02-021420	14-Feb-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW02-051420	14-May-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
RAMW03	HS SER-RAMW03-080719	7-Aug-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00058 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-DUP02-080719	7-Aug-19	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00060 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW03-121119	11-Dec-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00093 J	0.0010 U	0.0010 U	0.0011	0.0010 U	0.0010 U
	HS SER-DUP02-121119	11-Dec-19	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00099 J	0.0010 U	0.0010 U	0.0011	0.0010 U	0.0010 U	
	HS SER-RAMW03-021420	14-Feb-20		0.0010 U	0.0020 U	0.0010 U	0.00058 J	0.0010 U	0.0010 U	0.0010 U	0.00082 J	0.0010 U	0.0010 U	0.0011	0.0010 U	0.0010 U
	HS SER-DUP02-021420	14-Feb-20	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0013	0.0010 U	0.0010 U
	HS SER-RAMW03-051320	13-May-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.00096 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-DUP02-051320	13-May-20	Field Duplicate	0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
RAMW04	HS SER-RAMW04-080719	7-Aug-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW04-121119	11-Dec-19		0.0010 U	0.0020 U	0.0010 U	0.00074 J	0.0010 U	0.0010 U	0.0010 U	0.00083 J	0.0010 U	0.0010 U	0.0011	0.0010 U	0.0010 U
	HS SER-RAMW04-021320	13-Feb-20		0.00053 J	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0016	0.0010 U	0.0010 U
	HS SER-RAMW04-051320	13-May-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
RAMW05	HS SER-RAMW05-080719	7-Aug-19		0.00089 J	0.0020 U	0.0010 U	0.0011	0.0010 U	0.0014	0.0010 U	0.0069	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW05-121119	11-Dec-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0045	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW05-021320	13-Feb-20		0.00069 J	0.0020 U	0.0010 U	0.0012	0.0010 U	0.0012	0.0010 U	0.0018	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW05-051320	13-May-20		0.0010 U	0.0020 U	0.0010 U	0.0015	0.0010 U	0.0014	0.0010 U	0.0651	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
RAMW06	HS SER-RAMW06-080719	7-Aug-19		0.0010 U	0.0020 U	0.0010 U	0.0014	0.0010 U	0.0021	0.0010 U	0.0138	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW06-121119	11-Dec-19		0.0010 U	0.0020 U	0.00094 J	0.0034	0.0010 U	0.0030	0.0010 U	0.0795	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW06-021320	13-Feb-20		0.0010 U	0.0020 U	0.0010 U	0.0012	0.0010 U	0.0025	0.0010 U	0.0261	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW06-051320	13-May-20		0.00084 J	0.0020 U	0.0036	0.0025	0.0010 U	0.0010	0.0010 U	0.674^A	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
RAMW07	HS SER-RAMW07-080619	6-Aug-19		0.0010 U	0.0020 U	0.0023	0.0119	0.0010 U	0.00068 J	0.0010 U	0.316^A	0.0010 U	0.0023	0.0010 U	0.0010 U	0.0010 U
	HS SER-RAMW07-121119	11-Dec-19		0.0010 U	0.0020 U	0.0021	0.0037	0.0010 U								

Table 3
Third Quarter 2019 to Second Quarter 2020 Leachate Analytical Results - Performance Wells
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

				Trichloroethene (TCE)	Methylene Chloride (Dichloromethane)	1,1-Dichloroethene	1,1-Dichloroethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Ethylbenzene	Tetrachloroethene (PCE)	Toluene	Vinyl chloride	
Preliminary Remediation Goals (PRG) ^a				0.005 ^a _c	0.005 ^a _c	0.007 ^a _{b,c}	0.7 ^a	0.005 ^a _c	0.07 ^a _c	0.1 ^a _c	0.2 ^a _{b,c}	0.005 ^a _c	0.7 ^a _c	0.005 ^a _c	1.0 ^a _c	0.002 ^a _c	
Well	Sample ID	Sample Date	Sample Type	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
RAMW08	HS SER-RAMW08-080619	6-Aug-19		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	
	HS SER-RAMW08-121119	11-Dec-19		0.0010 U	0.0020 U	0.0010 U	0.0042	0.0010 U	0.0010 U	0.0010 U	0.0012	0.0010 U	0.0010 U	0.0010 U	0.0015	0.0010 U	
	HS SER-RAMW08-021320	13-Feb-20		0.0010 U	0.0020 U	0.0010 U	0.00059 J	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	
	HS SER-RAMW08-051220	12-May-20		0.0010 U	0.0020 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	

Notes:

PRG Preliminary Remediation Goals (PRGs) from the Record of Decision (ROD)

^a Class 1 - Groundwater Remediation Objectives

6.5^a Concentration exceeds the indicated standard at specified well; however, compliance with the standard is only applicable to GMZ wells.

15.2 Concentration was detected but did not exceed applicable standards.

0.50 U Laboratory estimated quantitation limit exceeded standard.

0.03 U The analyte was not detected above the laboratory estimated quantitation limit.

mg/L milligrams per liter

n/v No standard/guideline value.

- Parameter not analyzed / not available.

^{b,c} Oral Reference Dose and/or Reference Concentration under review by USEPA. Listed values subject to change.

Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for

Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.

^c Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill.Adm.Code 620.410 for

Class I Groundwater or 35 Ill.Adm.Code 620.420 for Class II Groundwater.

B The analyte was detected in the method, field and/or trip blank.

J Indicates estimated value.

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated

numerical value represents its approximate concentration.

Groundwater monitoring wells located within the influence of active treatment systems yield groundwater sample data that is potentially biased by the treatment activities. This potential bias should be considered during evaluation of this data.

Table 4.1
Cell 1 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 1 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 1 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl chloride		Methylene Chloride	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/10/2009	Dup	159	53	140	13000	3.76E-02	140 U	0.00E+00	45000	9.67E-02	140 U	0.00E+00	910	1.91E-03	18000	3.79E-02	140 U	0.00E+00	940	3.38E-03	260	7.41E-04	8100	1.10E-02	140 U	0.00E+00
12/22/2009		372	124	140	980	2.84E-03	26 U	0.00E+00	11000	2.36E-02	26 U	0.00E+00	130	2.74E-04	7300	1.54E-02	26 U	0.00E+00	390	1.40E-03	41	1.17E-04	470	6.38E-04	26 U	0.00E+00
2/24/2010		1893	631	150	640	1.99E-03	6.0 U	0.00E+00	1900	4.37E-03	6.0 U	0.00E+00	28	6.31E-05	630	1.42E-03	6.0 U	0.00E+00	150	5.78E-04	24	7.33E-05	33	4.80E-05	6.0 U	0.00E+00
3/15/2010		2345	782	140	1100	3.19E-03	8.4 U	0.00E+00	2800	6.01E-03	8.4 U	0.00E+00	37	7.79E-05	1300	2.74E-03	8.4 U	0.00E+00	180	6.48E-04	30	8.56E-05	32	4.34E-05	8.4 U	0.00E+00
4/14/2010		2804	935	150	1400	4.34E-03	12 U	0.00E+00	4100	9.44E-03	12 U	0.00E+00	31	6.99E-05	1400	3.16E-03	12 U	0.00E+00	790	3.05E-03	86	2.63E-04	91	1.32E-04	12 U	0.00E+00
5/13/2010		3495	1165	140	590	1.71E-03	7.0 U	0.00E+00	2600	5.58E-03	7.0 U	0.00E+00	13	2.74E-05	1100	2.31E-03	7.0 U	0.00E+00	300	1.08E-03	32	9.13E-05	10	1.36E-05	7.0 U	0.00E+00
6/21/2010		4430	1477	108	710	1.59E-03	8.6 U	0.00E+00	2600	4.31E-03	8.6 U	0.00E+00	16 J	2.60E-05	570	9.25E-04	8.6 U	0.00E+00	290	8.05E-04	30	6.60E-05	8.6 U	0.00E+00	8.6 U	0.00E+00
7/21/2010		5058	1686	140	480	1.39E-03	7.0 U	0.00E+00	2600	5.58E-03	7.0 U	0.00E+00	10	2.10E-05	630	1.33E-03	7.0 U	0.00E+00	710	2.56E-03	42	1.20E-04	7.0 U	0.00E+00	7.0 U	0.00E+00
8/23/2010		5784	1928	0	370	0.00E+00	8.2 U	0.00E+00	2400	0.00E+00	8.2 U	0.00E+00	540	0.00E+00	8.2 U	0.00E+00	500	0.00E+00	48	0.00E+00	8.2 U	0.00E+00	8.2 U	0.00E+00	8.2 U	0.00E+00
9/23/2010		6523	2174	145	480	1.44E-03	7.2 U	0.00E+00	2000	4.45E-03	7.2 U	0.00E+00	72	0.00E+00	250	5.45E-04	7.2 U	0.00E+00	380	1.42E-03	31	9.16E-05	7.2 U	0.00E+00	7.2 U	0.00E+00
10/22/2010		7219	2406	140	390	1.13E-03	5.0 U	0.00E+00	1600	3.44E-03	5.0 U	0.00E+00	50	0.00E+00	160	3.37E-04	5.0 U	0.00E+00	240	8.64E-04	21	5.99E-05	5.0 U	0.00E+00	5.0 U	0.00E+00
10/22/2010		7219	2406	140	2600	7.53E-03	10 U	0.00E+00	960	2.06E-03	10 U	0.00E+00	120	2.53E-04	490	1.03E-03	10 U	0.00E+00	140	5.04E-04	49	1.40E-04	10 U	0.00E+00	10 U	0.00E+00
11/15/2010		7794	2598	140	420	1.22E-03	4.3 U	0.00E+00	1700	3.65E-03	4.3 U	0.00E+00	43	2.95E-04	430	4.3 U	0.00E+00	140	5.04E-04	16	4.56E-05	4.3 U	0.00E+00	4.3 U	0.00E+00	
12/22/2010		8508	2777	150	600	1.86E-03	4.2 U	0.00E+00	1600	3.68E-03	4.2 U	0.00E+00	8.5	1.92E-05	510	1.15E-03	4.2 U	0.00E+00	75	2.89E-04	11	3.36E-05	4.2 U	0.00E+00	4.2 U	0.00E+00
1/24/2011		9302	2975	170	360	1.27E-03	5.2 U	0.00E+00	1700	4.43E-03	5.2 U	0.00E+00	52	0.00E+00	140	3.58E-04	5.2 U	0.00E+00	45	1.97E-04	8.6	2.98E-05	5.2 U	0.00E+00	5.2 U	0.00E+00
2/25/2011		10071	3167	165	280	9.56E-04	4.0 U	0.00E+00	1600	4.05E-03	4.0 U	0.00E+00	4.5	1.12E-05	120	2.98E-04	4.0 U	0.00E+00	34	1.44E-04	7.4	2.49E-05	4.0 U	0.00E+00	4.0 U	0.00E+00
3/18/2011		10573	3293	165	200	6.83E-04	6.3 U	0.00E+00	1900	4.81E-03	6.3 U	0.00E+00	6.3	0.00E+00	130	3.22E-04	6.3 U	0.00E+00	32	1.36E-04	6.4	2.15E-05	6.3 U	0.00E+00	6.3 U	0.00E+00
4/15/2011		11241	3460	160	180 J,B	5.96E-04	4.5 U	0.00E+00	1700	4.17E-03	4.5 U	0.00E+00	4.5	0.00E+00	110	2.65E-04	4.5 U	0.00E+00	43	1.77E-04	8.6	2.80E-05	4.5 U	0.00E+00	4.5 U	0.00E+00
5/19/2011		12061	3665	160	110	3.64E-04	4.3 U	0.00E+00	1100	2.70E-03	4.3 U	0.00E+00	4.3	0.00E+00	85	2.04E-04	4.3 U	0.00E+00	55	2.26E-04	8	2.61E-05	4.3 U	0.00E+00	4.3 U	0.00E+00
6/16/2011		12722	3830	170	150	5.27E-04	2.3 U	0.00E+00	730	1.90E-03	2.3 U	0.00E+00	2.8	7.15E-06	63	1.61E-04	2.3 U	0.00E+00	110	4.81E-04	12	4.16E-05	2.3 U	0.00E+00	2.3 U	0.00E+00
7/15/2011		13417	4472	170	140	4.92E-04	1.2 U	0.00E+00	390	1.02E-03	1.2 U	0.00E+00	2.2	5.62E-06	47	1.20E-04	1.2 U	0.00E+00	170	7.43E-04	14	4.85E-05	1.2 U	0.00E+00	1.2 U	0.00E+00
8/22/2011		14324	4775	170	150	5.27E-04	1.1 U	0.00E+00	210	5																

Table 4.1
Cell 1 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 1 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 1 Run Time (hr)	SVE Flow Rate (scfm)	Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene		Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
12/10/2009	Dup	159	53	140	140 U	0.00E+00	140 U	0.00E+00	17000	2.38E-02	140 U	0.00E+00	560	1.12E-03	250	5.76E-04	1800	4.15E-03	470	1.08E-03	3800	4.79E-03	140 U	0.00E+00	2.25E-01	11.91
12/22/2009		372	124	140	26 U	0.00E+00	26 U	0.00E+00	1700	2.38E-03	26 U	0.00E+00	32	6.40E-05	26 U	0.00E+00	26 U	0.00E+00	100 U	0.00E+00	26 U	0.00E+00	4.67E-02	15.23		
2/24/2010		1893	631	150	6.0 U	0.00E+00	6.0 U	0.00E+00	130	1.95E-04	19	3.45E-05	6.0 U	0.00E+00	6.0 U	0.00E+00	6.0 U	0.00E+00	98	1.32E-04	370	6.20E-04	9.52E-03	20.06		
3/15/2010		2345	782	140	8.4 U	0.00E+00	8.4 U	0.00E+00	170	2.38E-04	8.4 U	0.00E+00	8.4 U	0.00E+00	8.4 U	0.00E+00	8.4 U	0.00E+00	34 U	0.00E+00	8.4 U	0.00E+00	1.30E-02	22.02		
4/14/2010		2804	935	150	12 U	0.00E+00	12 U	0.00E+00	320	4.80E-04	14	2.54E-05	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	50 U	0.00E+00	12 U	0.00E+00	2.10E-02	25.22		
5/13/2010		3495	1165	140	7.0 U	0.00E+00	100	1.40E-04	12	2.03E-05	7.0 U	0.00E+00	7.0 U	0.00E+00	7.0 U	0.00E+00	7.0 U	0.00E+00	28 U	0.00E+00	7.0 U	0.00E+00	1.10E-02	27.75		
6/21/2010		4430	1477	108	8.6 U	0.00E+00	8.6 U	0.00E+00	87 J	9.40E-05	10	1.31E-05	8.6 U	0.00E+00	8.6 U	0.00E+00	8.6 U	0.00E+00	34 J	3.31E-05	8.6 U	0.00E+00	7.86E-03	30.20		
7/21/2010		5058	1686	140	7.0 U	0.00E+00	7.0 U	0.00E+00	60	8.40E-05	7.0 U	0.00E+00	7.0 U	0.00E+00	7.0 U	0.00E+00	7.0 U	0.00E+00	28 U	0.00E+00	7.0 U	0.00E+00	1.11E-02	32.52		
8/23/2010		5784	1928	0	8.2 U	0.00E+00	8.2 U	0.00E+00	38	0.00E+00	24	0.00E+00	8.2 U	0.00E+00	8.2 U	0.00E+00	8.2 U	0.00E+00	53	0.00E+00	8.2 U	0.00E+00	0.00E+00	32.52		
9/23/2010		6523	2174	145	7.2 U	0.00E+00	7.2 U	0.00E+00	15	2.18E-05	17	2.99E-05	7.2 U	0.00E+00	7.2 U	0.00E+00	7.2 U	0.00E+00	29 U	0.00E+00	7.2 U	0.00E+00	7.99E-03	34.49		
10/22/2010		7219	2406	140	5.0 U	0.00E+00	5.0 U	0.00E+00	11	1.54E-05	7.1	1.20E-05	5.0 U	0.00E+00	5.0 U	0.00E+00	5.0 U	0.00E+00	45	5.67E-05	5.0 U	0.00E+00	5.91E-03	35.86		
10/22/2010		7219	2406	140	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	41 U	0.00E+00	10 U	0.00E+00	1.15E-02	37.16				
11/15/2010		7794	2598	140	4.3 U	0.00E+00	4.3 U	0.00E+00	12	1.68E-05	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	17 U	0.00E+00	4.3 U	0.00E+00	5.73E-03	36.96		
12/22/2010		8508	2777	150	4.2 U	0.00E+00	4.2 U	0.00E+00	10	1.50E-05	5.3	9.63E-06	4.2 U	0.00E+00	4.2 U	0.00E+00	4.2 U	0.00E+00	16 NJ	2.16E-05	4.2 U	0.00E+00	7.08E-03	38.22		
1/24/2011		9302	2975	170	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00	5.2 U	0.00E+00	21 U	0.00E+00	5.2 U	0.00E+00	6.28E-03	39.47		
2/25/2011		10071	3167	165	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	5.48E-03	40.53				
3/18/2011		10573	3293	165	6.3 U	0.00E+00	6.3 U	0.00E+00	25 U	2.00E-05	6.3 U	0.00E+00	6.3 U	0.00E+00	6.3 U	0.00E+00	6.3 U	0.00E+00	25 U	0.00E+00	5.97E-03	41.27				
4/15/2011		11241	3460	160	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	4.5 U	0.00E+00	5.24E-03	42.15		
5/19/2011		12061	3665	160	4.3 U	0.00E+00	4.3 U	0.00E+00	17 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	17 U	0.00E+00	4.3 U	0.00E+00	3.52E-03	42.87		
6/16/2011		12722	3830	170	2.3 U	0.00E+00	2.3 U	0.00E+00	9.2 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	9.2 U	0.00E+00	9.2 U	0.00E+00	3.12E-03	43.39		
7/15/2011		13417	4472	170	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.5	3.09E-06	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	7.4	1.13E-05	4.6 U	0.00E+00	2.44E-03	44.96		
8/22/2011		14324	4775	170	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	6.7	1.38E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	44 J,B	6.74E-05	4.5 U	0.00E+00	2.10E-03	45.59		
9/15/2011		14905	4968	170	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	5.6	8.57E-06	4.5 U	0.00E+00	1.75E-03	45.93		
10/14/2011		15598	5199	160	0.74 U	0.00E+0																				

Table 4.1
Cell 1 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 1 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 1 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl chloride		Methylene Chloride	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period November 18, 2013 to January 15, 2014																										
1/15/2014		28218	8651	160	100	3.31E-04	1.1 U	0.00E+00	30	7.36E-05	1.1 U	0.00E+00	1.3	3.13E-06	4.7	1.13E-05	1.1 U	0.00E+00	69	2.84E-04	9.1	2.97E-05	1.1 U	0.00E+00	11 U	0.00E+00
3/14/2014		29432	8894	160	78	2.58E-04	1.1 U	0.00E+00	34	8.35E-05	1.1 U	0.00E+00	3.8	9.14E-06	6.1	1.47E-05	1.1 U	0.00E+00	30	1.23E-04	7	2.28E-05	1.1 U	0.00E+00	11 U	0.00E+00
Pulse -off period March 14, 2014 to May 15, 2014																										
5/15/2014		29914	8990	160	95	3.14E-04	1.2 U	0.00E+00	32	7.86E-05	1.2 U	0.00E+00	1.9	4.57E-06	6	1.44E-05	1.2 U	0.00E+00	55	2.26E-04	6.8	2.22E-05	1.2 U	0.00E+00	12 U	0.00E+00
7/23/2014		31567	9321	160	160	5.29E-04	1.2 U	0.00E+00	41	1.01E-04	1.2 U	0.00E+00	3.6	8.66E-06	9.3	2.24E-05	1.2 U	0.00E+00	170	6.99E-04	18	5.87E-05	1.2 U	0.00E+00	12 U	0.00E+00
Pulse -off period July 23, 2014 to September 16, 2014																										
9/16/2014		32432	9494	160	480	1.59E-03	2.2 U	0.00E+00	11	2.70E-05	2.2 U	0.00E+00	4	9.62E-06	8.7	2.09E-05	2.2 U	0.00E+00	14	5.76E-05	13	4.24E-05	2.2 U	0.00E+00	22 U	0.00E+00
11/14/2014		33847	9777	160	60	1.99E-04	1.1 U	0.00E+00	14	3.44E-05	1.1 U	0.00E+00	1.6	3.85E-06	3.6	8.66E-06	1.1 U	0.00E+00	50	2.06E-04	6.9	2.25E-05	1.1 U	0.00E+00	11 U	0.00E+00
Pulse -off period November 14, 2014 to January 9, 2015																										
1/9/2015	Dup	33855	9778	160	86	2.85E-04	1.1 U	0.00E+00	20	4.91E-05	1.1 U	0.00E+00	1.1	2.65E-06	4.0	9.62E-06	1.1 U	0.00E+00	55	2.26E-04	8.2	2.67E-05	1.1 U	0.00E+00	11 U	0.00E+00
1/9/2015	-	-	-	160	84	2.78E-04	1.2 U	0.00E+00	20	4.91E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6	1.11E-05	1.2 U	0.00E+00	80	3.29E-04	8.6	2.80E-05	1.2 U	0.00E+00	12 U	0.00E+00
3/13/2015		35189	10045	160	58	1.92E-04	1.3 U	0.00E+00	17	4.17E-05	1.3 U	0.00E+00	2.4	5.77E-06	3.6	8.66E-06	1.3 U	0.00E+00	32	1.32E-04	5.8	1.89E-05	1.3 U	0.00E+00	13 U	0.00E+00
Pulse -off period March 13, 2015 to May 15, 2015																										
5/15/2015		35194	10046	160	63	2.08E-04	2.3 U	0.00E+00	15	3.68E-05	2.3 U	0.00E+00	2.3 U	0.00E+00	2.7	6.49E-06	2.3 U	0.00E+00	67	2.76E-04	7.1	2.31E-05	2.3 U	0.00E+00	23 U	0.00E+00
7/16/2015		36677	10343	160	110	3.64E-04	1.1 U	0.00E+00	32	7.86E-05	1.1 U	0.00E+00	3.1	7.45E-06	6.7	1.61E-05	1.1 U	0.00E+00	170	6.99E-04	19	6.19E-05	1.1 U	0.00E+00	11 U	0.00E+00
Pulse -off period July 16, 2015 to September 22, 2015																										
9/22/2015		36680	10343	160	150	4.96E-04	1.4 U	0.00E+00	29	7.12E-05	1.4 U	0.00E+00	1.4 U	0.00E+00	5.6	1.35E-05	1.4 U	0.00E+00	250	1.03E-03	20	6.52E-05	1.4 U	0.00E+00	14 U	0.00E+00
11/20/2015		38094	10626	160	41	1.36E-04	1.0 U	0.00E+00	9.5	2.33E-05	1.0 U	0.00E+00	1.3	3.13E-06	2.5	6.01E-06	1.0 U	0.00E+00	46	1.89E-04	7.7	2.51E-05	1.0 U	0.00E+00	10 U	0.00E+00
Pulse -off period November 20, 2015 to January 19, 2016																										
1/19/2016		38101	10627	160	80	2.65E-04	1.1 U	0.00E+00	15	3.68E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	2.8	6.73E-06	1.1 U	0.00E+00	100	4.11E-04	11	3.59E-05	1.1 U	0.00E+00	11 U	0.00E+00
3/18/2016		39377	10883	160	48	1.59E-04	1.1 U	0.00E+00	14	3.44E-05	1.1 U	0.00E+00	1.9	4.57E-06	3.6	8.66E-06	1.1 U	0.00E+00	43	1.77E-04	7.7	2.51E-05	1.1 U	0.00E+00	11 U	0.00E+00
Pulse -off period March 18, 2016 to May 19, 2016																										
5/19/2016		39382	10884	160	55	1.82E-04	0.98 U	0.00E+00	14	3.44E-05	0.98 U	0.00E+00	0.98 U	0.00E+00	2.8	6.73E-06	0.98 U	0.00E+00	70	2.88E-04	8.3	2.71E-05	0.98 U	0.00E+00	9.8 U	0.00E+00
7/22/2016		40915	11190	160	94	3.11E-04	1.2 U	0.00E+00	22	5.40E-05	1.2 U	0.00E+00	2.3	5.53E-06	4.9	1.18E-05	1.2 U	0.00E+00	210	8.64E-04	14	4.56E-05	1.2 U	0.00E+00	12 U	0.00E+00
Pulse -off period July 22, 2016 to September 20, 2016																										
9/20/2016		40918	11191	160	120	3.97E-04	1.0 U	0.00E+00	16	3.93E-05	1.0 U	0.00E+00	1.0 U	0.00E+00	3.3	7.94E-06	1.0 U	0.00E+00	260	1.07E-03	15	4.89E-05	1.0 U	0.00E+00	10 U	0.00E+00
11/28/2016		42571	11521	160	50	1.65E-04	1.1 U	0.00E+00	16	3.93E-05	1.1 U	0.00E+00	2.4	5.77E-06	3.2	7.70E-06	1.1 U	0.00E+00	91	3.74E-04	9.7	3.16E-05	1.1 U	0.00E+00	11 U	0.00E+00
Pulse -off period November 28, 2016 to January 24, 2017																										
1/24/2017		42575	11522	170	45	1.58E-04	1.1 U	0.00E+00	12	3.13E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.6	4.09E-06	1.1 U	0.00E+00	49	2.14E-04	6.2	2.15E-05	1.1 U	0.00E+00	11 U	0.00E+00
3/23/2017		43840	11775	160	36	1.19E-04	1.2 U	0.00E+00	14	3.44E-05	1.2 U	0.00E+00	2.1	5.05E-06	2.8	6.73E-06	1.2 U	0.00E+00	43	1.77E-04	6.4	2.09E-05	1.2 U	0.00E+00	12 U	0.00E+00
Pulse -off period March 23, 2017 to May 15, 2017																										
5/15/2017		43846	11776	160	49	1.62E-04	1.1 U	0.00E+00	11	2.70E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	2.6	6.25E-06	1.1 U	0.00E+00	67	2.76E-04	7.5	2.44E-05	1.1 U	0.00E+00	11 U	0.00E+00
7/20/2017		45423	12092	170	89	3.13E-04	1.2 U	0.00E+00	18	4.69E-05	1.2 U	0.00E+00	2	5.11E-06	4.7	1.20E-05	1.2 U	0.00E+00	190	8.30E-04	19	6.58E-05	1.2 U	0.00E+00	12 U	0.00E+00
Pulse -off period July 20, 2017 to September 14, 2017																										
9/14/2017		45432	12094	160	130	4.30E-04	1.1 U	0.00E+00	19	4.66E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	3.4	8.18E-06	1.1 U	0.00E+00	300	1.23E-03	23	7.50E-05	1.1 U	0.00E+00	11 U	0.00E+00
11/17/2017		46966	12400	160	43	1.42E-04	1.1 U	0.00E+00	11	2.70E-05	1.1 U	0.00E+00	1.7	4.09E-06	3.4	8.18E-06	1.1 U	0.00E+00	86	3.54E-04	12	3.91E-05	1.1 U	0.00E+00	11 U	0.00E+00

Table 4.1
Cell 1 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 1 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 1 Run Time (hr)	SVE Flow Rate (scfm)	Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene		Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)			
Pulse-off period		November 18, 2013 to January 15, 2014																									
1/15/2014		28218	8651	160	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	7.32E-04	49.36			
3/14/2014		29432	8894	160	1.1 U	0.00E+00	1.1 U	0.00E+00	4.4 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.4 U	0.00E+00	5.12E-04	49.48					
Pulse-off period		March 14, 2014 to May 15, 2014																									
5/15/2014		29914	8990	160	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	6.60E-04	49.54			
7/23/2014		31567	9321	160	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	1.42E-03	50.01					
Pulse-off period		July 23, 2014 to September 16, 2014																									
9/16/2014		32432	9494	160	2.2 U	0.00E+00	2.2 U	0.00E+00	9.0 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	22 U	0.00E+00	9.0 U	0.00E+00	1.75E-03	50.32			
11/14/2014		33847	9777	160	1.1 U	0.00E+00	1.1 U	0.00E+00	4.6 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.6 U	0.00E+00	4.74E-04	50.45					
Pulse-off period		November 14, 2014 to January 9, 2015																									
1/9/2015		33855	9778	160	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	5.99E-04	50.45			
1/9/2015	Dup	-	-	160	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	6.95E-04	-					
3/13/2015		35189	10045	160	1.3 U	0.00E+00	1.3 U	0.00E+00	5.2 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.2 U	0.00E+00	3.99E-04	50.56					
Pulse-off period		March 13, 2015 to May 15, 2015																									
5/15/2015		35194	10046	160	2.3 U	0.00E+00	2.3 U	0.00E+00	9.2 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	23 U	0.00E+00	9.2 U	0.00E+00	5.51E-04	50.56			
7/16/2015		36677	10343	160	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	1.23E-03	50.92					
Pulse-off period		July 16, 2015 to September 22, 2015																									
9/22/2015		36680	10343	160	1.4 U	0.00E+00	1.4 U	0.00E+00	5.5 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	2.2	5.79E-06	3.4	8.95E-06	1.4 U	0.00E+00	14 U	0.00E+00	5.5 U	0.00E+00	1.69E-03	50.92	
11/20/2015		38094	10626	160	1.0 U	0.00E+00	1.0 U	0.00E+00	4.0 U	0.00E+00	1.0 U	0.00E+00	1.5	3.43E-06	1.0 U	0.00E+00	1.0 U	0.00E+00	10 U	0.00E+00	4.0 U	0.00E+00	3.86E-04	51.03			
Pulse-off period		November 20, 2015 to January 19, 2016																									
1/19/2016		38101	10627	160	1.1 U	0.00E+00	1.1 U	0.00E+00	4.2 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.2 U	0.00E+00	7.56E-04	51.03			
3/18/2016		39377	10883	160	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	3.8	1.00E-05	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	4.18E-04	51.14			
Pulse-off period		March 18, 2016 to May 19, 2016																									
5/19/2016		39382	10884	160	0.98 U	0.00E+00	0.98 U	0.00E+00	3.9 U	0.00E+00	0.98 U	0.00E+00	0.98 U	0.00E+00	0.98 U	0.00E+00	0.98 U	0.00E+00	9.8 U	0.00E+00	3.8 U	0.00E+00	5.38E-04	51.14			
7/22/2016		40915	11190	160	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	1.29E-03	51.54					
Pulse-off period		July 22, 2016 to September 20, 2016																									
9/20/2016		40918	11191	160	1.0 U	0.00E+00	1.0 U	0.00E+00	4.0 U	0.00E+00	1.0 U	0.00E+00	1.3	2.97E-06	1.0 U	0.00E+00	1.0 U	0.00E+00	10 U	0.00E+00	4.0 U	0.00E+00	1.57E-03	51.54			
11/28/2016		42571	11521	160	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	6.24E-04	51.74					
Pulse-off period		November 28, 2016 to January 24,																									

Table 4.1
Cell 1 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 1 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 1 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl chloride		Methylene Chloride	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period November 17, 2017 to January 22, 2018																										
1/22/2018		46970	12401	160	37	1.22E-04	1.3 U	0.00E+00	8.0	1.96E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	2.1	5.05E-06	1.3 U	0.00E+00	58	2.39E-04	6.5	2.12E-05	1.3 U	0.00E+00	13 U	0.00E+00
3/23/2018		48239	12655	160	27	8.93E-05	1.2 U	0.00E+00	7.2	1.77E-05	1.2 U	0.00E+00	1.2	2.89E-06	1.9	4.57E-06	1.2 U	0.00E+00	40	1.65E-04	5.8	1.89E-05	1.2 U	0.00E+00	12 U	0.00E+00
Pulse -off period March 23, 2018 to May 21, 2018																										
5/21/2018		48239	12655	160	36	1.19E-04	1.2 U	0.00E+00	8.0	1.96E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.7	4.09E-06	1.2 U	0.00E+00	68	2.80E-04	7.2	2.35E-05	1.2 U	0.00E+00	12 U	0.00E+00
7/26/2018		49825	12972	160	100	3.31E-04	1.2 U	0.00E+00	16.0	3.93E-05	1.2 U	0.00E+00	2.4	5.77E-06	3.2	7.70E-06	1.2 U	0.00E+00	250	1.03E-03	20	6.52E-05	1.2 U	0.00E+00	12 U	0.00E+00
Pulse -off period July 26, 2018 to September 17, 2018																										
9/17/2018		51096	13226	160	140	4.63E-04	1.2 U	0.00E+00	20.0	4.91E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	3.1	7.46E-06	1.2 U	0.00E+00	340	1.40E-03	23	7.50E-05	1.2 U	0.00E+00	12 U	0.00E+00
11/19/2018		52604	13528	160	40	1.32E-04	1.3 U	0.00E+00	9.9	2.43E-05	1.3 U	0.00E+00	1.6	3.85E-06	2.3	5.53E-06	1.3 U	0.00E+00	82	3.37E-04	12	3.91E-05	1.3 U	0.00E+00	13 U	0.00E+00
Pulse -off period November 19, 2018 to January 21, 2019																										
1/21/2019		52607	13529	160	36	1.19E-04	1.2 U	0.00E+00	7.1	1.74E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.4	3.37E-06	1.2 U	0.00E+00	43	1.77E-04	7.3	2.38E-05	1.2 U	0.00E+00	12 U	0.00E+00
3/21/2019		53941	13795	160	24	7.94E-05	1.4 U	0.00E+00	8.6	2.11E-05	1.4 U	0.00E+00	2.4	5.77E-06	1.8	4.33E-06	1.4 U	0.00E+00	28	1.15E-04	6.8	2.22E-05	1.4 U	0.00E+00	14 U	0.00E+00
Pulse -off period March 21, 2019 to May 24, 2019																										
5/24/2019		53943	13796	175	38	1.38E-04	1.3 U	0.00E+00	9.2	2.47E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	1.7	4.47E-06	1.3 U	0.00E+00	58	2.61E-04	8.1	2.89E-05	1.3 U	0.00E+00	13 U	0.00E+00
7/29/2019		55529	14113	160	130	4.30E-04	1.4 U	0.00E+00	14.0	3.44E-05	1.4 U	0.00E+00	2.3	5.53E-06	4.5	1.08E-05	1.4 U	0.00E+00	100	4.11E-04	8.9	2.90E-05	1.4 U	0.00E+00	14 U	0.00E+00
Pulse -off period July 29, 2019 to September 27, 2019																										
9/27/2019		55531	14113	180	180	6.70E-04	1.3 U	0.00E+00	11.0	3.04E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	1.7	4.60E-06	1.3 U	0.00E+00	140	6.48E-04	12	4.40E-05	1.3 U	0.00E+00	13 U	0.00E+00
12/9/2019		57186	14444	180	88	3.28E-04	1.2 U	0.00E+00	4.2	1.16E-05	1.2 U	0.00E+00	1.4	3.79E-06	1.6	4.33E-06	1.2 U	0.00E+00	19	8.79E-05	4.6	1.69E-05	1.2 U	0.00E+00	12 U	0.00E+00
Pulse -off period December 9, 2019 to January 21, 2020																										
1/21/2020		57189	14445	180	50	1.86E-04	1.3 U	0.00E+00	3.7	1.02E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	16	7.40E-05	1.7	6.23E-06	1.3 U	0.00E+00	13 U	0.00E+00
3/20/2020		58462	14700	180	36	1.34E-04	1.3 U	0.00E+00	5.9	1.63E-05	1.3 U	0.00E+00	1.9	5.14E-06	1.4	3.79E-06	1.3 U	0.00E+00	13	6.02E-05	4.8	1.76E-05	1.3 U	0.00E+00	13	0.00E+00
Pulse -off period March 20, 2020 to May 21, 2020																										
5/21/2020		58464	14700	180	55	2.05E-04	1.1 U	0.00E+00	6																	

Table 4.1
Cell 1 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 1 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 1 Run Time (hr)	SVE Flow Rate (scfm)	Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene		Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
Pulse -off period		November 17, 2017 to January 22, 2018																								
1/22/2018		46970	12401	160	1.3 U	0.00E+00	1.3 U	0.00E+00	5.1 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.1 U	0.00E+00	4.07E-04	52.42		
3/23/2018		48239	12655	160	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.9 U	0.00E+00	2.98E-04	52.49		
Pulse -off period		March 23, 2018 to May 21, 2018																								
5/21/2018		48239	12655	160	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	4.46E-04	52.49		
7/26/2018		49825	12972	160	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.6	5.21E-06	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	1.48E-03	52.96		
Pulse -off period		July 26, 2018 to September 17, 2018																								
9/17/2018		51096	13226	160	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.9 U	0.00E+00	1.99E-03	53.47		
11/19/2018		52604	13528	160	1.3 U	0.00E+00	1.3 U	0.00E+00	5.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.3 U	0.00E+00	5.42E-04	53.63		
Pulse -off period		November 19, 2018 to January 21, 2019																								
1/21/2019		52607	13529	160	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	3.44E-04	53.63		
3/21/2019		53941	13795	160	1.4 U	0.00E+00	1.4 U	0.00E+00	5.5 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	14 U	0.00E+00	5.5 U	0.00E+00	2.48E-04	53.70		
Pulse -off period		March 21, 2019 to May 24, 2019																								
5/24/2019		53943	13796	175	1.3 U	0.00E+00	1.3 U	0.00E+00	5.1 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.1 U	0.00E+00	4.57E-04	53.70		
7/29/2019		55529	14113	160	1.4 U	0.00E+00	1.4 U	0.00E+00	5.6 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	14 U	0.00E+00	5.6 U	0.00E+00	9.21E-04	53.99		
Pulse -off period		July 29, 2019 to September 27, 2019																								
9/27/2019		55531	14113	180	1.3 U	0.00E+00	1.3 U	0.00E+00	5.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.3 U	0.00E+00	1.40E-03	53.99		
12/9/2019		57186	14444	180	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.4	5.13E-06	11	2.83E-05	1.2 U	0.00E+00	4.1	1.21E-05	12 U	0.00E+00	4.7 U	0.00E+00	1.58E-03	54.52		
Pulse -off period		December 9, 2019 to January 21, 2020																								
1/21/2020		57189	14445	180	1.3 U	0.00E+00	1.3 U	0.00E+00	5.1 U	0.00E+00	28	1.03E-04	75	1.93E-04	9.4	2.79E-05	25	2.89E-09	7.8	1.08E-03	43	6.97E-05	5.1 U	0.00E+00	1.75E-03	54.52
3/20/2020		58462	14700	180	1.3 U	0.00E+00	1.3 U	0.00E+00	5.4 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.4 U	0.00E+00	1.32E-03	54.85		
Pulse -off period		March 20, 2020 to May 21, 2020																								
5/21/2020		58464	14700	180	1.1 U	0.00E+00	1.1 U	0.00E+00	4.6 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.6 U	0.00E+00	3.71E-04	54.85		

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National

SCFM standard cubic feet per minute

J Indicates estimated value.

B The analyte was detected in the method, field and/or

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.2
Cell 2 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/11/2009	Dup	178	59	150	40000	1.24E-01	86 U	0.00E+00	21000	4.83E-02	86 U	0.00E+00	4500	1.01E-02	25000	5.64E-02	86 U	0.00E+00	1500	5.78E-03
12/15/2009		205	68	140	27000	7.82E-02	110 U	0.00E+00	14000	3.01E-02	110 U	0.00E+00	3100	6.52E-03	16000	3.37E-02	110 U	0.00E+00	950	3.42E-03
12/29/2009		539	180	140	24000	6.95E-02	100 U	0.00E+00	9100	1.95E-02	100 U	0.00E+00	2100	4.42E-03	9200	1.94E-02	100 U	0.00E+00	1000	3.60E-03
1/13/2010		903	301	150	9100	2.82E-02	35 U	0.00E+00	3700	8.52E-03	35 U	0.00E+00	880	1.98E-03	3200	7.21E-03	35 U	0.00E+00	610	2.35E-03
1/27/2010		1224	408	150	13000	4.03E-02	40 U	0.00E+00	4300	9.90E-03	40 U	0.00E+00	1100	2.48E-03	3900	8.79E-03	40 U	0.00E+00	600	2.31E-03
1/27/2010		1224	408	150	14000	4.34E-02	40 U	0.00E+00	4800	1.10E-02	40 U	0.00E+00	1200	2.71E-03	4400	9.92E-03	40 U	0.00E+00	630	2.43E-03
2/24/2010		1893	631	150	8000	2.48E-02	22 U	0.00E+00	3000	6.90E-03	22 U	0.00E+00	520	1.17E-03	2300	5.19E-03	22 U	0.00E+00	200	7.71E-04
3/15/2010		2345	782	140	17000	4.92E-02	48 U	0.00E+00	8000	1.72E-02	48 U	0.00E+00	1100	2.31E-03	6300	1.33E-02	48 U	0.00E+00	860	3.10E-03
4/14/2010		2804	935	150	8400	2.61E-02	23 U	0.00E+00	2200	5.06E-03	23 U	0.00E+00	480	1.08E-03	2000	4.51E-03	23 U	0.00E+00	1300	5.01E-03
5/13/2010		3495	1165	140	8000	2.32E-02	11 U	0.00E+00	3100	6.66E-03	11 U	0.00E+00	480	1.01E-03	2800	5.89E-03	11 U	0.00E+00	380	1.37E-03
6/21/2010		4430	1477	108	5800	1.30E-02	23 U	0.00E+00	3000 J	4.97E-03	23 U	0.00E+00	360 J	5.84E-04	2100	3.41E-03	23 U	0.00E+00	300	8.33E-04
7/21/2010		5058	1686	140	4500	1.30E-02	14 U	0.00E+00	1600	3.44E-03	14 U	0.00E+00	280	5.89E-04	1200	2.53E-03	14 U	0.00E+00	260	9.36E-04
8/23/2010		5784	1928	0	7100	0.00E+00	20 U	0.00E+00	2700	0.00E+00	20 U	0.00E+00	290	0.00E+00	1400	0.00E+00	20 U	0.00E+00	620	0.00E+00
9/23/2010		6523	2174	145	4300	1.29E-02	12 U	0.00E+00	1600	3.56E-03	12 U	0.00E+00	270	5.88E-04	940	2.05E-03	12 U	0.00E+00	290	1.08E-03
10/22/2010		7219	2406	140	2500	7.24E-03	10 U	0.00E+00	890	1.91E-03	10 U	0.00E+00	110	2.31E-04	470	9.89E-04	10 U	0.00E+00	180	6.48E-04
11/15/2010		7794	2598	140	3200	9.27E-03	11 U	0.00E+00	1100	2.36E-03	11 U	0.00E+00	130	2.74E-04	440	9.26E-04	11 U	0.00E+00	120	4.32E-04
12/22/2010		8508	2955	150	4000	1.24E-02	14 U	0.00E+00	1500	3.45E-03	14 U	0.00E+00	240	5.41E-04	730	1.65E-03	14 U	0.00E+00	72	2.78E-04
1/24/2011		9302	3352	170	780	2.74E-03	2.7 U	0.00E+00	800	2.09E-03	2.7 U	0.00E+00	22	5.62E-05	390	9.96E-04	2.7 U	0.00E+00	26	1.14E-04
2/25/2011		10071	3737	165	1500	5.12E-03	4.0 U	0.00E+00	1100	2.78E-03	4.0 U	0.00E+00	44	1.09E-04	560	1.39E-03	4.0 U	0.00E+00	32	1.36E-04
3/18/2011		10573	3988	165	370	1.26E-03	1.0 U	0.00E+00	160	4.05E-04	1.0 U	0.00E+00	11	2.73E-05	62	1.54E-04	1.0 U	0.00E+00	19	8.06E-05
4/15/2011		11241	4322	160	300 J,B	9.93E-04	1.0 U	0.00E+00	95	2.33E-04	1.0 U	0.00E+00	12	2.89E-05	41	9.86E-05	1.0 U	0.00E+00	20	8.23E-05
5/19/2011		12061	4732	160	93	3.08E-04	1.1 U	0.00E+00	39	9.57E-05	1.1 U	0.00E+00	3.5	8.42E-06	21	5.05E-05	1.1 U	0.00E+00	14	5.76E-05
6/16/2011		12722	5062	170	99	3.48E-04	1.2 U	0.00E+00	48	1.25E-04	1.2 U	0.00E+00	2.4	6.13E-06	21	5.37E-05	1.2 U	0.00E+00	30	1.31E-04
7/15/2011		13417	4472	170	77	2.71E-04	1.2 U	0.00E+00	25	6.52E-05	1.2 U	0.00E+00	1.7	4.34E-06	18	4.60E-05	1.2 U	0.00E+00	30	1.31E-04
8/22/2011		14324	4775	170	78	2.74E-04	1.2 U	0.00E+00	31	8.09E-05	1.2 U	0.00E+00	1.2	3.07E-06	17	4.34E-05	1.2 U	0.00E+00	54	2.36E-04
9/15/2011		14905	4968	170	69	2.43E-04	1.1 U	0.00E+00	20	5.22E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	12	3.07E-05	1.1 U	0.00E+00	32	1.40E-04
10/14/2011		15598	5199	160	43	1.42E-04	0.82 U	0.00E+00	12	2.95E-05	0.82 U	0.00E+00	0.82 U	0.00E+00	6.3	1.52E-05	0.82 U	0.00E+00	8.4	3.46E-05
11/21/2011		16510	5503	170	28 J,B	9.85E-05	1.6 U	0.00E+00	7.7	2.01E-05	1.6 U	0.00E+00	1.6 U	0.00E+00	4.1	1.05E-05	1.6 U	0.00E+00	7	3.06E-05
12/14/2011		17010	5670	170	26	9.14E-05	0.76 U	0.00E+00	5.2	1.36E-05	0.76 U	0.00E+00								

Table 4.2
Cell 2 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/11/2009	Dup	178	59	150	330	1.01E-03	4400	6.40E-03	86 U	0.00E+00	86 U	0.00E+00	86 U	0.00E+00	210	3.15E-04	86 U	0.00E+00	200	4.29E-04
12/15/2009		205	68	140	240	6.84E-04	3500	4.75E-03	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00	370	5.18E-04	110 U	0.00E+00	140	2.80E-04
12/29/2009		539	180	140	240	6.84E-04	1500	2.03E-03	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	120	1.68E-04	100 U	0.00E+00	100 U	0.00E+00
1/13/2010		903	301	150	130	3.97E-04	250	3.63E-04	35 U	0.00E+00	35 U	0.00E+00	35 U	0.00E+00	170	2.55E-04	35 U	0.00E+00	35 U	0.00E+00
1/27/2010		1224	408	150	150	4.58E-04	200	2.91E-04	40 U	0.00E+00	40 U	0.00E+00	40 U	0.00E+00	120	1.80E-04	40 U	0.00E+00	40 U	0.00E+00
1/27/2010		1224	408	150	180	5.50E-04	240	3.49E-04	40 U	0.00E+00	40 U	0.00E+00	40 U	0.00E+00	130	1.95E-04	40 U	0.00E+00	40 U	0.00E+00
2/24/2010		1893	631	150	98	2.99E-04	73	1.06E-04	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	38	5.70E-05	22 U	0.00E+00	22 U	0.00E+00
3/15/2010		2345	782	140	210	5.99E-04	62	8.41E-05	48 U	0.00E+00	48 U	0.00E+00	48 U	0.00E+00	180	2.52E-04	48 U	0.00E+00	48 U	0.00E+00
4/14/2010		2804	935	150	190	5.81E-04	69	1.00E-04	23 U	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	23	0.00E+00	23 U	0.00E+00	23 U	0.00E+00
5/13/2010		3495	1165	140	78	2.22E-04	42	5.70E-05	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	20	2.80E-05	11 U	0.00E+00	11 U	0.00E+00
6/21/2010		4430	1477	108	88	1.94E-04	23 U	0.00E+00	23 UJ	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	33 J	3.56E-05	23 U	0.00E+00	23 U	0.00E+00
7/21/2010		5058	1686	140	80	2.28E-04	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14	0.00E+00	14 U	0.00E+00	14 U	0.00E+00
8/23/2010		5784	1928	0	150	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	21	0.00E+00	20 U	0.00E+00	20 U	0.00E+00
9/23/2010		6523	2174	145	74	2.19E-04	12	1.69E-05	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00
10/22/2010		7219	2406	140	42	1.20E-04	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00
11/15/2010		7794	2598	140	35	9.98E-05	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00
12/22/2010		8508	2955	150	27	8.25E-05	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14	0.00E+00	14 U	0.00E+00	14 U	0.00E+00
1/24/2011		9302	3352	170	9	3.12E-05	2.7 U	0.00E+00	2.7 U	0.00E+00	2.7 U	0.00E+00	2.7 U	0.00E+00	2.7 U	0.00E+00	2.7 U	0.00E+00	3.1	7.53E-06
2/25/2011		10071	3737	165	15	5.04E-05	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00
3/18/2011		10573	3988	165	7.3	2.45E-05	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00
4/15/2011		11241	4322	160	8.5	2.77E-05	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.1 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00
5/19/2011		12061	4732	160	11	3.59E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	8.1	1.57E-05	1.1 U	0.00E+00
6/16/2011		12722	5062	170	15	5.19E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.9	3.91E-06	1.2 U	0.00E+00
7/15/2011		13417	4472	170	21	7.27E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	5.3	1.09E-05	1.2 U	0.00E+00
8/22/2011		14324	4775	170	22	7.62E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.6	3.29E-06	1.2 U	0.00E+00
9/15/2011		14905	4968	170	18	6.23E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	4.6	9.47E-06	1.1 U	0.00E+00
10/14/2011		15598	5199	160	9.1	2.97E-05	0.82 U	0.00E+00	0.82 U	0.00E+00	0.82 U	0.00E+00	0.82 U	0.00E+00	3.3 U	0.00E+00	0.82 U	0.00E+00	0.82 U	0.00E+00
11/21/2011		16510	5503	170	5.1	1.77E-05	1.6 U	0.00E+00	1.6 UJ	0.00E+00	1.6 U	0.00E+00	1.6 U	0.00E+00	6.4 U	0.00E+00	1.6 U	0.00E+00	1.6 U	0.00E+00
12/14/2011		17010	5670	170	3.4	1.18E-05	0.76 U	0.00E+00	7.6 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	0.78	1.61E-06	0.76 U	0.00E+

Table 4.2
Cell 2 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Cumulative Mass Removal (lb)	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
12/11/2009	Dup	178	59	150	86 U	0.00E+00	240	5.93E-04	110	2.72E-04	340 U	0.00E+00	86 U	0.00E+00	2.54E-01	15.05
12/15/2009		205	68	140	110 U	0.00E+00	230	5.30E-04	110 U	0.00E+00	430 U	0.00E+00	110 U	0.00E+00	1.59E-01	16.48
12/29/2009		539	180	140	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	420 U	0.00E+00	100 U	0.00E+00	1.19E-01	29.76
1/13/2010		903	301	150	35 U	0.00E+00	35 U	0.00E+00	35 U	0.00E+00	140 U	0.00E+00	35 U	0.00E+00	4.93E-02	35.75
1/27/2010		1224	408	150	40 U	0.00E+00	40 U	0.00E+00	40 U	0.00E+00	160 U	0.00E+00	40 U	0.00E+00	6.47E-02	42.68
1/27/2010		1224	408	150	40 U	0.00E+00	40 U	0.00E+00	40 U	0.00E+00	160 U	0.00E+00	40 U	0.00E+00	7.06E-02	43.31
2/24/2010		1893	631	150	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	87 U	0.00E+00	22 U	0.00E+00	3.93E-02	51.44
3/15/2010		2345	782	140	48 U	0.00E+00	48 U	0.00E+00	48 U	0.00E+00	190 U	0.00E+00	48 U	0.00E+00	8.60E-02	64.40
4/14/2010		2804	935	150	23 U	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	92 U	0.00E+00	23 U	0.00E+00	4.24E-02	70.89
5/13/2010		3495	1165	140	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	43 U	0.00E+00	11 U	0.00E+00	3.84E-02	79.74
6/21/2010		4430	1477	108	23 U	0.00E+00	23 U	0.00E+00	23 U	0.00E+00	92 U	0.00E+00	23 U	0.00E+00	2.30E-02	86.90
7/21/2010		5058	1686	140	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	58 U	0.00E+00	14 U	0.00E+00	2.07E-02	91.24
8/23/2010		5784	1928	0	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	81 U	0.00E+00	20 U	0.00E+00	0.00E+00	91.24
9/23/2010		6523	2174	145	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	47 U	0.00E+00	12 U	0.00E+00	2.04E-02	96.27
10/22/2010		7219	2406	140	10 U	0.00E+00	10 U	0.00E+00	10 U	0.00E+00	42 U	0.00E+00	10 U	0.00E+00	1.11E-02	98.85
11/15/2010		7794	2598	140	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	44 U	0.00E+00	11 U	0.00E+00	1.34E-02	101.41
12/22/2010		8508	2955	150	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	56 U	0.00E+00	14 U	0.00E+00	1.84E-02	107.99
1/24/2011		9302	3352	170	2.7 U	0.00E+00	2.7 U	0.00E+00	2.7 U	0.00E+00	11 U	0.00E+00	11	2.09E-05	6.06E-03	110.39
2/25/2011		10071	3737	165	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	9.59E-03	114.08
3/18/2011		10573	3988	165	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	15	2.23E-05	4.0 U	0.00E+00	1.98E-03	114.57
4/15/2011		11241	4322	160	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	8.2 J,B	1.18E-05	4.1 U	0.00E+00	1.48E-03	115.07
5/19/2011		12061	4732	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11	1.58E-05	4.5 U	0.00E+00	5.87E-04	115.31
6/16/2011		12722	5062	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	19	2.91E-05	4.7 U	0.00E+00	7.49E-04	115.55
7/15/2011		13417	4472	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	19	2.91E-05	4.6 U	0.00E+00	6.30E-04	115.18
8/22/2011		14324	4775	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	6.8 J,B	1.04E-05	4.7 U	0.00E+00	7.28E-04	115.40
9/15/2011		14905	4968	170	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11	1.68E-05	4.5 U	0.00E+00	5.54E-04	115.51
10/14/2011		15598	5199	160	0.82 U	0.00E+00	0.82 U	0.00E+00	0.82 U	0.00E+00	5	7.20E-06	3.3 U	0.00E+00	2.58E-04	115.57
11/21/2011		16510	5503	170	1.6 U	0.00E+00	1.6 U	0.00E+00	1.6 U	0.00E+00	6.4 UJ	0.00E+00	6.4 U	0.00E+00	1.77E-04	115.62
12/14/2011		17010	5670	170	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	7.6 UJ	0.00E+00	3.0 U	0.00E+00	1.65E-04	115.65
1/19/2012		17923	5974	170	0.79	2.21E-06	1.5	4.20E-06	1.1	3.08E-06	14	2.14E-05	3.0 U	0.00E+00	1.80E-04	115.71
2/15/2012		18566	6189	170	0.73 U	0.00E+00	0.73 U	0.00E+00	0.73 U	0.00E+00	7.9	1.21E-05	2.9 U	0.00E+00	1.83E-04	115.74
3/15/2012		19262	6421	170	0.71 U	0.00E+00	0.71 U	0.00E+00	0.71 U	0.00E+00	8.9	1.36E-05	2.8 U	0.00E+00	1.75E-04	115.79
4/19/2012		20102	6701	160	0.76 U	0.00E+00	0.76 U	0.00E+00	0.76 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	1.88E-04	115.84
5/16/2012		20748	6916	160	0.78 U	0.00E+00	0.78 U	0.00E+00	0.78 U	0.00E+00	3.1 U	0.00E+00	3.1 U	0.00E+00	1.94E-04	115.88
Pulse -off period June 1, 2012 to August 14, 2012																
8/14/2012		21282	7094	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	21	3.03E-05	5.3 U	0.00E+00	1.79E-03	116.20
9/17/2012		21952	7317	160	1.1 U	0.00E+00	1.1 U	0.00E+00								

Table 4.2
Cell 2 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		29914	8990	160	240	7.94E-04	1.1 U	0.00E+00	99	2.43E-04	1.1 U	0.00E+00	4.8	1.15E-05	7.8	1.88E-05	1.1 U	0.00E+00	14	5.76E-05
7/23/2014		31567	9321	160	89	2.95E-04	1.2 U	0.00E+00	20	4.91E-05	1.2 U	0.00E+00	1.8	4.33E-06	3.7	8.90E-06	1.2 U	0.00E+00	11	4.52E-05
Pulse -off period July 23, 2014 to September 16, 2014																				
9/16/2014		32432	9494	160	310	1.03E-03	2.1 U	0.00E+00	120	2.95E-04	2.1 U	0.00E+00	3.9	9.38E-06	6	1.44E-05	2.1 U	0.00E+00	19	7.82E-05
11/14/2014		33847	9777	160	42	1.39E-04	1.1 U	0.00E+00	7.8	1.91E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.6	3.85E-06	1.1 U	0.00E+00	11	4.52E-05
Pulse -off period November 14, 2014 to January 9, 2015																				
1/9/2015		33855	9778	160	210	6.95E-04	1.2 U	0.00E+00	69	1.69E-04	1.2 U	0.00E+00	3.7	8.90E-06	3.4	8.18E-06	1.2 U	0.00E+00	8.2	3.37E-05
3/13/2015		35189	10045	160	18	5.96E-05	1.3 U	0.00E+00	5.4	1.33E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	3.5	1.44E-05
Pulse -off period March 13, 2015 to May 15, 2015																				
5/15/2015		35194	10046	160	240	7.94E-04	1.2 U	0.00E+00	76	1.87E-04	1.2 U	0.00E+00	3.0	7.21E-06	3.5	8.42E-06	1.2 U	0.00E+00	8.2	3.37E-05
7/16/2015		36677	10343	160	64	2.12E-04	1.2 U	0.00E+00	17	4.17E-05	1.2 U	0.00E+00	1.7	4.09E-06	4.2	1.01E-05	1.2 U	0.00E+00	8.6	3.54E-05
Pulse -off period July 16, 2015 to September 22, 2015																				
9/22/2015		36680	10343	160	450	1.49E-03	1.1 U	0.00E+00	210	5.16E-04	1.1 U	0.00E+00	3.4	8.18E-06	9.6	2.31E-05	1.1 U	0.00E+00	28	1.15E-04
11/20/2015		38094	10626	160	43	1.42E-04	1.2 U	0.00E+00	12	2.95E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.5	3.61E-06	1.2 U	0.00E+00	14	5.76E-05
Pulse -off period November 20, 2015 to January 19, 2016																				
1/19/2016		38101	10627	160	260	8.60E-04	1.1 U	0.00E+00	89	2.18E-04	1.1 U	0.00E+00	2.5	6.01E-06	3.2	7.70E-06	1.1 U	0.00E+00	14	5.76E-05
3/18/2016		39377	10883	160	23	7.61E-05	1.1 U	0.00E+00	9.5	2.33E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	3.6	1.48E-05
Pulse -off period March 18, 2016 to May 19, 2016																				
5/19/2016		39382	10884	160	210	6.95E-04	1.2 U	0.00E+00	96	2.36E-04	1.2 U	0.00E+00	2.7	6.49E-06	3.1	7.46E-06	1.2 U	0.00E+00	7	2.88E-05
7/22/2016		40915	11190	160	33	1.09E-04	1.2 U	0.00E+00	13	3.19E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	3.8	9.14E-06	1.2 U	0.00E+00	19	7.82E-05
Pulse -off period July 22, 2016 to September 20, 2016																				
9/20/2016		40918	11191	160	280	9.27E-04	1.2 U	0.00E+00	150	3.68E-04	1.2 U	0.00E+00	3.2	7.70E-06	6.9	1.66E-05	1.2 U	0.00E+00	32	1.32E-04
11/28/2016		42571	11521	160	26	8.60E-05	1.1 U	0.00E+00	12	2.95E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	2.3	5.53E-06	1.1 U	0.00E+00	20	8.23E-05
Pulse -off period November 28, 2016 to January 24, 2017																				
1/24/2017		42575	11522	170	150	5.27E-04	1.1 U	0.00E+00	78	2.03E-04	1.1 U	0.00E+00	2.2	5.62E-06	2.6	6.64E-06	1.1 U	0.00E+00	23	1.01E-04
3/23/2017		43840	11775	160	27	8.93E-05	1.1 U	0.00E+00	11	2.70E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	2.1	5.05E-06	1.1 U	0.00E+00	5.2	2.14E-05
Pulse -off period March 23, 2017 to May 15, 2017																				
5/15/2017		43846	11776	160	150	4.96E-04	1.2 U	0.00E+00	77	1.89E-04	1.2 U	0.00E+00	2.1	5.05E-06	3.4	8.18E-06	1.2 U	0.00E+00	12	4.94E-05
7/20/2017		45423	12092	170	24	8.44E-05	1.2 U	0.00E+00	13	3.39E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.3	3.32E-06	1.2 U	0.00E+00	14	6.12E-05
Pulse -off period July 20, 2017 to September 14, 2017																				
9/14/2017		45432	12094	160	280	9.27E-04	1.1 U	0.00E+00	250	6.14E-04	1.1 U	0.00E+00	2	4.81E-06	8.4	2.02E-05	1.1 U	0.00E+00	41	1.69E-04
11/17/2017		46966	12400	160	22	7.28E-05	1.2 U	0.00E+00	9.3	2.28E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	7.5	3.09E-05

Table 4.2
Cell 2 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		29914	8990	160	6.6	2.15E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	16	2.56E-05	1.1 U	0.00E+00	1.1 U	0.00E+00
7/23/2014		31567	9321	160	19	6.19E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period July 23, 2014 to September 16, 2014																				
9/16/2014		32432	9494	160	26	8.47E-05	2.1 U	0.00E+00	21 U	0.00E+00	2.1 U	0.00E+00	2.1 U	0.00E+00	8.3 U	0.00E+00	3.5	6.78E-06	2.1 U	0.00E+00
11/14/2014		33847	9777	160	7.3	2.38E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.6 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period November 14, 2014 to January 9, 2015																				
1/9/2015		33855	9778	160	9.3	3.03E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
3/13/2015		35189	10045	160	3.0	9.78E-06	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.0 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
Pulse -off period March 13, 2015 to May 15, 2015																				
5/15/2015		35194	10046	160	5.4	1.76E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	7.0	1.12E-05	1.2 U	0.00E+00	1.2 U	0.00E+00
7/16/2015		36677	10343	160	18.0	5.87E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period July 16, 2015 to September 22, 2015																				
9/22/2015		36680	10343	160	30	9.78E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
11/20/2015		38094	10626	160	9.7	3.16E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period November 20, 2015 to January 19, 2016																				
1/19/2016		38101	10627	160	8.5	2.77E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
3/18/2016		39377	10883	160	3	9.78E-06	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period March 18, 2016 to May 19, 2016																				
5/19/2016		39382	10884	160	4.2	1.37E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
7/22/2016		40915	11190	160	14	4.56E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.5	2.91E-06	1.2 U	0.00E+00
Pulse -off period July 22, 2016 to September 20, 2016																				
9/20/2016		40918	11191	160	20	6.52E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
11/28/2016		42571	11521	160	8.9	2.90E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.6 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period November 28, 2016 to January 24, 2017																				
1/24/2017		42575	11522	170	8.7	3.01E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
3/23/2017		43840	11775	160	5.6	1.83E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.4 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period March 23, 2017 to May 15, 2017																				
5/15/2017		43846	11776	160	7.4	2.41E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
7/20/2017		45423	12092	170	18	6.23E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00

Table 4.2
Cell 2 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
Pulse -off period March 14, 2014 to May 15, 2014																
5/15/2014		29914	8990	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	25	3.60E-05	11 U	0.00E+00	1.21E-03	117.64
7/23/2014		31567	9321	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	4.64E-04	117.79
Pulse -off period July 23, 2014 to September 16, 2014																
9/16/2014		32432	9494	160	2.1 U	0.00E+00	2.1 U	0.00E+00	2.1 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	1.51E-03	118.05
11/14/2014		33847	9777	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.6 U	0.00E+00	2.31E-04	118.12
Pulse -off period November 14, 2014 to January 9, 2015																
1/9/2015		33855	9778	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	9.45E-04	118.12
3/13/2015		35189	10045	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.0 U	0.00E+00	9.70E-05	118.15
Pulse -off period March 13, 2015 to May 15, 2015																
5/15/2015		35194	10046	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	1.06E-03	118.15
7/16/2015		36677	10343	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	3.62E-04	118.25
Pulse -off period July 16, 2015 to September 22, 2015																
9/22/2015		36680	10343	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	2.25E-03	118.26
11/20/2015		38094	10626	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	2.65E-04	118.33
Pulse -off period November 20, 2015 to January 19, 2016																
1/19/2016		38101	10627	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	1.18E-03	118.33
3/18/2016		39377	10883	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	1.24E-04	118.36
Pulse -off period March 18, 2016 to May 19, 2016																
5/19/2016		39382	10884	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	9.87E-04	118.36
7/22/2016		40915	11190	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	2.77E-04	118.45
Pulse -off period July 22, 2016 to September 20, 2016																
9/20/2016		40918	11191	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	1.52E-03	118.45
11/28/2016		42571	11521	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.6 U	0.00E+00	2.32E-04	118.53
Pulse -off period November 28, 2016 to January 24, 2017																
1/24/2017		42575	11522	170	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	8.74E-04	118.53
3/23/2017		43840	11775	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.4 U	0.00E+00	1.61E-04	118.57
Pulse -off period March 23, 2017 to May 15, 2017																
5/15/2017		43846	11776	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12	0.00E+00	4.9 U	0.00E+00	7.72E-04	118.57
7/20/2017		45423	12092	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	2.45E-04	118.65
Pulse -off period July 20, 2017 to September 14, 2017																
9/14/2017		45432	12094	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	1.84E-03	118.65
11/17/2017		46966	12400	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	1.50E-04	118.70

Table 4.2
Cell 2 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse-off period November 17, 2017 to January 22, 2018																				
1/22/2018		46970	12401	160	180	5.96E-04	1.2 U	0.00E+00	90	2.21E-04	1.2 U	0.00E+00	3.0	7.21E-06	3.1	7.46E-06	1.2 U	0.00E+00	10	4.11E-05
3/23/2018		48239	12655	160	3.3	1.09E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	3.6	1.48E-05
Pulse-off period March 23, 2018 to May 21, 2018																				
5/21/2018		48242	12656	160	160	5.29E-04	1.3 U	0.00E+00	96	2.36E-04	1.3 U	0.00E+00	2.6	6.25E-06	2.5	6.01E-06	1.3 U	0.00E+00	7.2	2.96E-05
7/26/2018		49825	12972	160	27	8.93E-05	1.2 U	0.00E+00	20	4.91E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2	2.89E-06	1.2 U	0.00E+00	17	6.99E-05
Pulse-off period July 26, 2018 to September 17, 2018																				
9/17/2018		51096	13226	160	290	9.60E-04	1.3 U	0.00E+00	370	9.08E-04	1.3 U	0.00E+00	3.7	8.90E-06	15	3.61E-05	1.3 U	0.00E+00	41	1.69E-04
11/19/2018		52604	13528	160	18	5.96E-05	1.3 U	0.00E+00	13	3.19E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	7.7	3.17E-05
Pulse-off period November 19, 2018 to January 21, 2019																				
1/21/2019		52607	13529	160	200	6.62E-04	1.2 U	0.00E+00	110	2.70E-04	1.2 U	0.00E+00	3.2	7.70E-06	3.8	9.14E-06	1.2 U	0.00E+00	16	6.58E-05
3/21/2019		53941	13795	160	16	5.29E-05	1.3 U	0.00E+00	7.9	1.94E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	4.6	1.89E-05
Pulse-off period March 21, 2019 to May 24, 2019																				
5/24/2019		53943	13796	175	250	9.05E-04	1.3 U	0.00E+00	160	4.30E-04	1.3 U	0.00E+00	3.4	8.94E-06	4.5	1.18E-05	1.3 U	0.00E+00	8.2	3.69E-05
7/29/2019		55529	14113	160	110	3.64E-04	1.5 U	0.00E+00	16	3.93E-05	1.5 U	0.00E+00	1.5 U	0.00E+00	4.4	1.06E-05	1.5 U	0.00E+00	19	7.82E-05
Pulse-off period July 29, 2019 to September 27, 2019																				
9/27/2019		55531	14113	180	290	1.08E-03	1.3 U	0.00E+00	130	3.59E-04	1.3 U	0.00E+00	2.5	6.76E-06	5.2	1.41E-05	1.3 U	0.00E+00	20	9.26E-05
9/27/2019	Dup	-	-	-	290	-	1.3 U	-	130	-	1.3 U	-	2.4	-	4.8	-	1.3 U	-	23	-
12/9/2019		57186	14444	180	35	1.30E-04	1.3 U	0.00E+00	1.6	4.42E-06	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	3.8	1.76E-05
Pulse-off period December 9, 2019 to January 21, 2020																				
1/21/2020		57189	14445	180	130	4.84E-04	1.4 U	0.00E+00	48	1.33E-04	1.4 U	0.00E+00	1.8	4.87E-06	1.7	4.60E-06	1.4 U	0.00E+00	7.7	3.56E-05
3/20/2020		58462	14700	180	36	1.34E-04	1.3 U	0.00E+00	5.9	1.63E-05	1.3 U	0.00E+00	1.9	5.14E-06	1.4	3.79E-06	1.3 U	0.00E+00	13	6.02E-05
Pulse-off period March 20, 2020 to May 21, 2020																				
5/21/2020		58464	14700	180	130	4.84E-04	1.2 U	0.00E+00	76	2.10E-04	1.2 U	0.00E+00	1.6	4.33E-06	2.2	5.95E-06	1.2 U	0.00E+00	5	2.31E-05

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library of Medicine)

SCFM standard cubic feet per minute

J Indicates estimated value.

B The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.2
Cell 2 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period November 17, 2017 to January 22, 2018																				
1/22/2018		46970	12401	160	7.5	2.44E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	5.0	8.00E-06	1.2 U	0.00E+00	1.2 U	0.00E+00
3/23/2018		48239	12655	160	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period March 23, 2018 to May 21, 2018																				
5/21/2018		48242	12656	160	3.7	1.21E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	9.3	1.49E-05	1.3 U	0.00E+00	1.3 U	0.00E+00
7/26/2018		49825	12972	160	20	6.52E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period July 26, 2018 to September 17, 2018																				
9/17/2018		51096	13226	160	24	7.82E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.8	9.28E-06	1.3 U	0.00E+00	1.3 U	0.00E+00
11/19/2018		52604	13528	160	7.2	2.35E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.2 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
Pulse -off period November 19, 2018 to January 21, 2019																				
1/21/2019		52607	13529	160	6.6	2.15E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
3/21/2019		53941	13795	160	3.2	1.04E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.0 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
Pulse -off period March 21, 2019 to May 24, 2019																				
5/24/2019		53943	13796	175	4.8	1.71E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13.0	2.28E-05	1.3 U	0.00E+00	1.23U	0.00E+00
7/29/2019		55529	14113	160	11	3.59E-05	1.5 U	0.00E+00	15 U	0.00E+00	1.5 U	0.00E+00	1.5 U	0.00E+00	5.9 U	0.00E+00	1.5 U	0.00E+00	1.5 U	0.00E+00
Pulse -off period July 29, 2019 to September 27, 2019																				
9/27/2019		55531	14113	180	14	5.13E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.2 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
9/27/2019	Dup	-	-	-	14	-	1.3 U	-	13 U	-	1.3 U	-	1.3 U	-	5.3 U	-	1.3 U	-	1.3 U	-
12/9/2019		57186	14444	180	1.9	6.97E-06	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.0 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
Pulse -off period December 9, 2019 to January 21, 2020																				
1/21/2020		57189	14445	180	2.2	8.07E-06	1.4 U	0.00E+00	14 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00
3/20/2020		58462	14700	180	4.8	1.76E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.4 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
Pulse -off period March 20, 2020 to May 21, 2020																				
5/21/2020		58464	14700	180	3.5	1.28E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library of Medicine)

SCFM standard cubic feet per minute

J Indicates estimated value.

B The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.2
Cell 2 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 2 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 2 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
Pulse -off period November 17, 2017 to January 22, 2018																
1/22/2018		46970	12401	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	9.05E-04	118.70
3/23/2018		48239	12655	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	2.57E-05	118.70
Pulse -off period March 23, 2018 to May 21, 2018																
5/21/2018		48242	12656	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.2 U	0.00E+00	8.34E-04	118.70
7/26/2018		49825	12972	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	2.76E-04	118.79
Pulse -off period July 26, 2018 to September 17, 2018																
9/17/2018		51096	13226	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.1 U	0.00E+00	2.17E-03	119.34
11/19/2018		52604	13528	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.2 U	0.00E+00	1.47E-04	119.39
Pulse -off period November 19, 2018 to January 21, 2019																
1/21/2019		52607	13529	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	1.04E-03	119.39
3/21/2019		53941	13795	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.0 U	0.00E+00	1.02E-04	119.41
Pulse -off period March 21, 2019 to May 24, 2019																
5/24/2019		53943	13796	175	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.1 U	0.00E+00	1.43E-03	119.41
7/29/2019		55529	14113	160	1.5 U	0.00E+00	1.5 U	0.00E+00	1.5 U	0.00E+00	15 U	0.00E+00	5.9 U	0.00E+00	5.28E-04	119.58
Pulse -off period July 29, 2019 to September 27, 2019																
9/27/2019		55531	14113	180	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.2 U	0.00E+00	1.60E-03	119.58
9/27/2019	Dup	-	-	-	1.3 U	-	1.3 U	-	1.3 U	-	13 U	-	5.3 U	-	-	-
12/9/2019		57186	14444	180	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.0 U	0.00E+00	1.59E-04	119.64
Pulse -off period December 9, 2019 to January 21, 2020																
1/21/2020		57189	14445	180	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	14 U	0.00E+00	5.4 U	0.00E+00	6.70E-04	119.64
3/20/2020		58462	14700	180	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.4 U	0.00E+00	2.37E-04	119.70
Pulse -off period March 20, 2020 to May 21, 2020																
5/21/2020		58464	14700	180	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	24	3.89E-05	4.8 U	0.00E+00	7.79E-04	119.70

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library of Medicine)

SCFM standard cubic feet per minute

J Indicates estimated value.

B The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.3
Cell 3 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
12/14/2009	Dup	181	60	140	94000	2.72E-01	270 U	0.00E+00	1100	2.36E-03	270 U	0.00E+00	2300	4.84E-03	8100	1.70E-02	270 U	0.00E+00	750	2.70E-03
12/16/2009		229	76	150	46000	1.43E-01	110 U	0.00E+00	710	1.63E-03	110 U	0.00E+00	1100	2.48E-03	5500	1.24E-02	110 U	0.00E+00	400	1.54E-03
1/5/2010		707	236	140	42000	1.22E-01	150 U	0.00E+00	290	6.23E-04	150 U	0.00E+00	980	2.06E-03	1500	3.16E-03	150 U	0.00E+00	240	8.64E-04
1/21/2010		1084	361	150	15000	4.65E-02	42 U	0.00E+00	260	5.98E-04	42 U	0.00E+00	280	6.31E-04	1600	3.61E-03	42 U	0.00E+00	170	6.56E-04
1/21/2010		1084	361	150	16000	4.96E-02	43 U	0.00E+00	280	6.44E-04	43 U	0.00E+00	290	6.54E-04	1700	3.83E-03	43 U	0.00E+00	170	6.56E-04
2/24/2010		1893	631	150	11000	3.41E-02	28 U	0.00E+00	240	5.52E-04	28 U	0.00E+00	280	6.31E-04	1100	2.48E-03	28 U	0.00E+00	140	5.40E-04
3/15/2010		2345	782	140	20000	5.79E-02	21 U	0.00E+00	400	8.59E-04	21 U	0.00E+00	510	1.07E-03	1900	4.00E-03	21 U	0.00E+00	280	1.01E-03
4/14/2010		2804	935	150	31000	9.62E-02	100 U	0.00E+00	380	8.75E-04	100 U	0.00E+00	1100	2.48E-03	1200	2.71E-03	100 U	0.00E+00	820	3.16E-03
5/13/2010		3495	1165	140	8300	2.40E-02	12 U	0.00E+00	220	4.73E-04	12 U	0.00E+00	190	4.00E-04	960	2.02E-03	12 U	0.00E+00	200	7.20E-04
6/21/2010		4430	1477	108	7200	1.61E-02	21 U	0.00E+00	220	3.65E-04	21 U	0.00E+00	150	2.43E-04	660	1.07E-03	21 U	0.00E+00	160	4.44E-04
7/21/2010		5058	1686	140	6100	1.77E-02	20 U	0.00E+00	120	2.58E-04	20 U	0.00E+00	130	2.74E-04	460	9.68E-04	20 U	0.00E+00	120	4.32E-04
8/23/2010		5784	1928	0	8000	0.00E+00	20 U	0.00E+00	200	0.00E+00	20 U	0.00E+00	120	0.00E+00	490	0.00E+00	20 U	0.00E+00	220	0.00E+00
9/23/2010		6523	2174	145	6600	1.98E-02	11 U	0.00E+00	140	3.11E-04	11 U	0.00E+00	140	3.05E-04	440	9.59E-04	11 U	0.00E+00	160	5.96E-04
10/22/2010		7219	2406	140	3700	1.07E-02	14 U	0.00E+00	91	1.95E-04	14 U	0.00E+00	66	1.39E-04	210	4.42E-04	14 U	0.00E+00	110	3.96E-04
11/15/2010		7794	2598	140	4600	1.33E-02	15 U	0.00E+00	120	2.58E-04	15 U	0.00E+00	64	1.35E-04	170	3.58E-04	15 U	0.00E+00	88	3.17E-04
12/22/2010		8508	2777	150	5600	1.74E-02	20 U	0.00E+00	150	3.45E-04	20 U	0.00E+00	120	2.71E-04	330	7.44E-04	20 U	0.00E+00	56	2.16E-04
1/24/2011		9302	2975	170	2200	7.74E-03	8.3 U	0.00E+00	130	3.39E-04	8.3 U	0.00E+00	27	6.90E-05	200	5.11E-04	8.3 U	0.00E+00	35	1.53E-04
2/25/2011		10071	3167	165	1300	4.44E-03	4.0 U	0.00E+00	45	1.14E-04	4.0 U	0.00E+00	25	6.20E-05	72	1.79E-04	4.0 U	0.00E+00	28	1.19E-04
3/18/2011		10573	3293	165	360	1.23E-03	1.3 U	0.00E+00	24	6.08E-05	1.3 U	0.00E+00	5.4	1.34E-05	35	8.68E-05	1.3 U	0.00E+00	13	5.51E-05
4/15/2011		11241	3460	160	160 J,B	5.29E-04	1.0 U	0.00E+00	17	4.17E-05	1.0 U	0.00E+00	2.8	6.73E-06	28	6.73E-05	1.0 U	0.00E+00	15	6.17E-05
5/19/2011		12061	3665	160	64	2.12E-04	1.2 U	0.00E+00	10	2.45E-05	1.2 U	0.00E+00	1.4	3.37E-06	12	2.89E-05	1.2 U	0.00E+00	9.6	3.95E-05
6/16/2011		12722	3830	170	160	5.63E-04	1.2 U	0.00E+00	280	7.30E-04	1.2 U	0.00E+00	2.5	6.39E-06	34	8.69E-05	1.2 U	0.00E+00	61	2.67E-04
7/15/2011		13417	4472	170	190	6.68E-04	1.2 U	0.00E+00	8.3	2.16E-05	1.2 U	0.00E+00	2.8	7.15E-06	23	5.88E-05	1.2 U	0.00E+00	22	9.62E-05
8/22/2011		14324	4775	170	1600	5.63E-03	4.3 U	0.00E+00	19	4.96E-05	4.3 U	0.00E+00	21	5.37E-05	130	3.32E-04	4.3 U	0.00E+00	39	1.70E-04
9/15/2011		14905	4968	170	800	2.81E-03	3.7 U	0.00E+00	9.5	2.48E-05	3.7 U	0.00E+00	12	3.07E-05	62	1.58E-04	3.7 U	0.00E+00	24	1.05E-04
10/14/2011		15598	5199	160	750	2.48E-03	3.0 U	0.00E+00	10	2.45E-05	3.0 U	0.00E+00	13	3.13E-05	37	8.90E-05	3.0 U	0.00E+00	15	6.17E-05
11/21/2011		16510	5503	170	380	1.34E-03	1.4 U	0.00E+00	6.6	1.72E-05	1.4 U	0.00E+00	5.6	1.43E-05	24	6.13E-05	1.4 U	0.00E+00	7.9	3.45E-05
12/14/2011		17010	5670	170	830	2.92E-03	3.5 U	0.00E+00	8.7	2.27E-05	3.5 U	0.00E+00	70	1.79E-04	33	8.43E-05	3.5 U	0.00E+00	6.9	3.02E-05
1/19/2012		17923	5974	170	800	2.81E-03	3.0 U	0.00E+00	12	3.13E-05	3.0 U	0.00E+00	13	3.32E-05	33	8.43E-05	3.0 U	0.		

Table 4.3
Cell 3 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
12/14/2009	Dup	181	60	140	1000	2.85E-03	270 U	0.00E+00	270 U	0.00E+00	270 U	0.00E+00	270 U	0.00E+00	270 U	0.00E+00	270 U	0.00E+00	270 U	0.00E+00
12/16/2009		229	76	150	550	1.68E-03	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00	110 U	0.00E+00
1/5/2010		707	236	140	250	7.13E-04	150 U	0.00E+00	220	4.06E-04	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00
1/21/2010		1084	361	150	140	4.28E-04	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00
1/21/2010		1084	361	150	140	4.28E-04	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00
2/24/2010		1893	631	150	66	2.02E-04	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00
3/15/2010		2345	782	140	120	3.42E-04	51	6.92E-05	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00
4/14/2010		2804	935	150	190	5.81E-04	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00
5/13/2010		3495	1165	140	43	1.23E-04	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00
6/21/2010		4430	1477	108	55	1.21E-04	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00
7/21/2010		5058	1686	140	44	1.25E-04	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00
8/23/2010		5784	1928	0	66	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00
9/23/2010		6523	2174	145	50	1.48E-04	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00
10/22/2010		7219	2406	140	31	8.84E-05	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00
11/15/2010		7794	2598	140	29	8.27E-05	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00
12/22/2010		8508	2777	150	21	6.42E-05	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00
1/24/2011		9302	2975	170	17	5.89E-05	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00
2/25/2011		10071	3167	165	16	5.38E-05	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00
3/18/2011		10573	3293	165	5.9	1.98E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.4 U	0.00E+00	1.9	3.80E-06	1.3 U	0.00E+00
4/15/2011		11241	3460	160	7.7	2.51E-05	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.1 U	0.00E+00	2.6	5.04E-06	1.0 U	0.00E+00
5/19/2011		12061	3665	160	6.9	2.25E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.9	3.68E-06	1.2 U	0.00E+00
6/16/2011		12722	3830	170	9.8	3.39E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.6	3.29E-06	1.2 U	0.00E+00
7/15/2011		13417	4472	170	9.3	3.22E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
8/22/2011		14324	4775	170	21	7.27E-05	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	17 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00
9/15/2011		14905	4968	170	14	4.85E-05	3.7 U	0.00E+00	3.7 U	0.00E+00	3.7 U	0.00E+00	3.7 U	0.00E+00	15 U	0.00E+00	4.1	8.44E-06	3.7 U	0.00E+00
10/14/2011		15598	5199	160	13	4.24E-05	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	12 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00
11/21/2011		16510	5503	170	9.2	3.19E-05	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.5 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00
12/14/2011		17010	5670	170	22	7.62E-05	3.5 U	0.00E+00	35 U	0.00E+00	3.5 U	0.00E+00	3.5 U	0.00E+00	14 U	0.00E+00	3.5 U	0.00E+00	3.5 U	0.00E+00
1/19/2012		17923	5974	170	12	4.16E-05	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	12 U	0.00E+00	3.0 U	0.00E+00		

Table 4.3
Cell 3 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
12/14/2009	Dup	181	60	140	270 U	0.00E+00	1600	3.69E-03	510	1.18E-03	1100 U	0.00E+00	270 U	0.00E+00	3.07E-01	18.51
12/16/2009		229	76	150	110 U	0.00E+00	540	1.33E-03	240	5.93E-04	590	7.97E-04	110 U	0.00E+00	1.65E-01	21.16
1/5/2010		707	236	140	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00	590 U	0.00E+00	150 U	0.00E+00	1.29E-01	41.78
1/21/2010		1084	361	150	42 U	0.00E+00	42 U	0.00E+00	42 U	0.00E+00	170 U	0.00E+00	42 U	0.00E+00	5.25E-02	48.37
1/21/2010		1084	361	150	43 U	0.00E+00	43 U	0.00E+00	43 U	0.00E+00	170 U	0.00E+00	43 U	0.00E+00	5.59E-02	48.80
2/24/2010		1893	631	150	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	110 U	0.00E+00	28 U	0.00E+00	3.85E-02	58.76
3/15/2010		2345	782	140	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	83 U	0.00E+00	21 U	0.00E+00	6.53E-02	68.60
4/14/2010		2804	935	150	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	420 U	0.00E+00	100 U	0.00E+00	1.06E-01	84.81
5/13/2010		3495	1165	140	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	48 U	0.00E+00	12 U	0.00E+00	2.78E-02	91.21
6/21/2010		4430	1477	108	21 U	0.00E+00	21 U	0.00E+00	21 U	0.00E+00	83 U	0.00E+00	21 U	0.00E+00	1.83E-02	96.92
7/21/2010		5058	1686	140	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	79 U	0.00E+00	20 U	0.00E+00	1.97E-02	101.05
8/23/2010		5784	1928	0	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	81 U	0.00E+00	20 U	0.00E+00	0.00E+00	101.05
9/23/2010		6523	2174	145	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	43 U	0.00E+00	11 U	0.00E+00	2.21E-02	106.49
10/22/2010		7219	2406	140	14 U	0.00E+00	14 U	0.00E+00	14 U	0.00E+00	55 U	0.00E+00	14 U	0.00E+00	1.20E-02	109.27
11/15/2010		7794	2598	140	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	59 U	0.00E+00	15 U	0.00E+00	1.45E-02	112.05
12/22/2010		8508	2777	150	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	82 U	0.00E+00	20 U	0.00E+00	1.90E-02	115.44
1/24/2011		9302	2975	170	8.3 U	0.00E+00	8.3 U	0.00E+00	8.3 U	0.00E+00	33 U	0.00E+00	8.3 U	0.00E+00	8.87E-03	117.20
2/25/2011		10071	3167	165	4.0 U	0.00E+00	4.0 U	0.00E+00	4.0 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	4.96E-03	118.15
3/18/2011		10573	3293	165	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	10	1.49E-05	5.4 U	0.00E+00	1.48E-03	118.34
4/15/2011		11241	3460	160	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	7.3 J.B.	1.05E-05	4.1 U	0.00E+00	7.48E-04	118.47
5/19/2011		12061	3665	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	4.8 U	0.00E+00	3.34E-04	118.53
6/16/2011		12722	3830	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	6.8	1.04E-05	4.7 U	0.00E+00	1.70E-03	118.81
7/15/2011		13417	4472	170	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	7.7	1.18E-05	4.8 U	0.00E+00	8.96E-04	119.39
8/22/2011		14324	4775	170	4.3 U	0.00E+00	4.3 U	0.00E+00	4.3 U	0.00E+00	17 U	0.00E+00	17 U	0.00E+00	6.30E-03	121.30
9/15/2011		14905	4968	170	3.7 U	0.00E+00	3.7 U	0.00E+00	3.7 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	3.19E-03	121.91
10/14/2011		15598	5199	160	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	2.73E-03	122.54
11/21/2011		16510	5503	170	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.5 U.J	0.00E+00	5.5 U	0.00E+00	1.50E-03	123.00
12/14/2011		17010	5670	170	3.5 U	0.00E+00	3.5 U	0.00E+00	3.5 U	0.00E+00	380 J	5.82E-04	58	1.10E-04	4.00E-03	123.67
1/19/2012		17923	5974	170	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	3.03E-03	124.59
2/15/2012		18566	6189	170	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	18 U	0.00E+00	6.70E-03	126.03
3/15/2012		19262	6421	170	5.1 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	6.04E-03	127.43
4/19/2012		20102	6701	160	1.8 U	0.00E+00	1.8 U	0.00E+00	1.8 U	0.00E+00	7.3 U	0.00E+00	7.3 U	0.00E+00	2.13E-03	128.02
5/16/2012		20748	6916	160	0.80 U	0.00E+00	0.80 U	0.00E+00	0.80 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00	1.16E-03	128.27
Pulse -off period June 1, 2012 to August 14, 2012																
8/14/2012		21282	7094	160	4.7 U	0.00E+00	4.7 U	0.00E+00	4.7 U	0.00E+00	47 U	0.00E+00	19 U	0.00E+00	4.27E-03	129.03
9/17/2012		21952	7317	160	16 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	160 U	0.00E+00	65 U	0.00E+00	1.80E-02	133.04
Pulse -off period September 17, 2012 to November 15, 2012								</td								

Table 4.3
Cell 3 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
Pulse -off period November 18, 2013 to January 15, 2014																				
1/15/2014		28218	10916	160	240	7.94E-04	1.2 U	0.00E+00	5	1.23E-05	1.2 U	0.00E+00	4.1	1.36E-05	16	3.85E-05	1.2 U	0.00E+00	18	7.40E-05
3/14/2014		29432	11645	160	72	2.38E-04	1.2 U	0.00E+00	8.7	2.14E-05	1.2 U	0.00E+00	2.4	7.94E-06	6.4	1.54E-05	1.2 U	0.00E+00	9.5	3.91E-05
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		29914	11934	160	770	2.55E-03	2.3 U	0.00E+00	15	3.68E-05	2.3 U	0.00E+00	12	3.97E-05	86	2.07E-04	2.3 U	0.00E+00	6.9	2.84E-05
7/23/2014		31567	12926	160	130	4.30E-04	1.4 U	0.00E+00	5	1.23E-05	1.4 U	0.00E+00	1.4	4.63E-06	10	2.40E-05	1.4 U	0.00E+00	10	4.11E-05
Pulse -off period July 23, 2014 to September 16, 2014																				
9/16/2014		32432	13445	160	390	1.29E-03	2.4 U	0.00E+00	15	3.68E-05	2.4 U	0.00E+00	3	7.21E-06	8.4	2.02E-05	2.4 U	0.00E+00	17	6.99E-05
11/14/2014		33847	14294	160	180	5.96E-04	1.2 U	0.00E+00	5.2	1.28E-05	1.2 U	0.00E+00	3	9.93E-06	25	6.01E-05	1.2 U	0.00E+00	18	7.40E-05
Pulse -off period November 14, 2014 to January 9, 2015																				
1/9/2015		33855	14299	160	220	7.28E-04	1.1 U	0.00E+00	4.7	1.15E-05	1.1 U	0.00E+00	2.2	5.29E-06	18	4.33E-05	1.1 U	0.00E+00	11	4.52E-05
3/13/2015		35189	15099	160	200	6.62E-04	1.2 U	0.00E+00	4.4	1.08E-05	1.2 U	0.00E+00	3.1	1.03E-05	14	3.37E-05	1.2 U	0.00E+00	4.2	1.73E-05
Pulse -off period March 13, 2015 to May 15, 2015																				
5/15/2015		35194	15102	160	300	9.93E-04	1.2 U	0.00E+00	5.6	1.37E-05	1.2 U	0.00E+00	3.1	7.45E-06	10	2.40E-05	1.2 U	0.00E+00	8.1	3.33E-05
7/16/2015		36677	15992	160	180	5.96E-04	1.2 U	0.00E+00	6.5	1.60E-05	1.2 U	0.00E+00	2.3	7.61E-06	19	4.57E-05	1.2 U	0.00E+00	6	2.47E-05
Pulse -off period July 16, 2015 to September 22, 2015																				
9/22/2015		36680	15994	160	530	1.75E-03	2.3 U	0.00E+00	11	2.70E-05	2.3 U	0.00E+00	2.6	6.25E-06	10	2.40E-05	2.3 U	0.00E+00	18	7.40E-05
11/20/2015		38094	16842	160	64	2.12E-04	1.1 U	0.00E+00	3.2	7.86E-06	1.1 U	0.00E+00	1.2	2.89E-06	5.4	1.30E-05	1.1 U	0.00E+00	7.3	3.00E-05
Pulse -off period November 20, 2015 to January 19, 2016																				
1/19/2016		38101	16846	160	68	2.25E-04	1.1 U	0.00E+00	2.6	6.38E-06	1.1 U	0.00E+00	1.1 U	0.00E+00	1.3	3.13E-06	1.1 U	0.00E+00	12	4.94E-05
3/18/2016		39377	17612	160	66	2.18E-04	1.1 U	0.00E+00	2.4	5.89E-06	1.1 U	0.00E+00	1.1 U	0.00E+00	3.8	9.14E-06	1.1 U	0.00E+00	2.7	1.11E-05
Pulse -off period March 18, 2016 to May 19, 2016																				
5/19/2016		39382	17615	160	240	7.94E-04	1.1 U	0.00E+00	110	2.70E-04	1.1 U	0.00E+00	2.7	6.49E-06	3.7	8.90E-06	1.1 U	0.00E+00	6.4	2.63E-05
7/22/2016		40915	17921	160	120	3.97E-04	1.3 U	0.00E+00	5.2	1.28E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	9.7	2.33E-05	1.3 U	0.00E+00	9.6	3.95E-05
Pulse -off period July 22, 2016 to September 20, 2016																				
9/20/2016		40918	17923	160	220	7.28E-04	1.2 U	0.00E+00	5.1	1.25E-05	1.2 U	0.00E+00	1.5	3.61E-06	3.9	9.38E-06	1.2 U	0.00E+00	15	6.17E-05
11/28/2016		42571	18915	160	19	6.29E-05	1.0 U	0.00E+00	1.6	3.93E-06	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	7.2	2.96E-05
Pulse -off period November 28, 2016 to January 24, 2017																				
1/24/2017		42575	18917	170	42	1.48E-04	1.1 U	0.00E+00	1.9	4.96E-06	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	2.7	1.18E-05
3/23/2017		43840	19676	160	130	4.30E-04	1.3 U	0.00E+00	4.1	1.01E-05	1.3 U	0.00E+00	1.8	4.33E-06	9.2	2.21E-05	1.3 U	0.00E+00	2.8	1.15E-05
Pulse -off period March 23, 2017 to May 15, 2017																				
5/15/2017		43846	19680	160	120	3.97E-04	1.0 U	0.00E+00	3	7.36E-06	1.0 U	0.00E+00	1.1	2.65E-06	5.2	1.25E-05	1.0 U	0.00E+00	4	1.65E-05
7/20/2017		45423	20626	170	82	2.88E-04	1.1 U	0.00E+00	2.2	5.74E-06	1.1 U	0.00E+00	1.1 U	0.00E+00	3	7.67E-06	1.1 U	0.00E+00	7.2	3.15E-05
Pulse -off period July 20, 2017 to September 14, 2017 </																				

Table 4.3
Cell 3 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse-off period November 18, 2013 to January 15, 2014																				
1/15/2014		28218	10916	160	7.6	2.48E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
3/14/2014		29432	11645	160	8.1	2.64E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse-off period March 14, 2014 to May 15, 2014																				
5/15/2014		29914	11934	160	20	6.52E-05	2.3 U	0.00E+00	23 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	9.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00
7/23/2014		31567	12926	160	9	2.93E-05	1.4 U	0.00E+00	14 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.6 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00
Pulse-off period July 23, 2014 to September 16, 2014																				
9/16/2014		32432	13445	160	14	4.56E-05	2.4 U	0.00E+00	24 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	9.5 U	0.00E+00	3	5.81E-06	2.4 U	0.00E+00
11/14/2014		33847	14294	160	6.2	2.02E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse-off period November 14, 2014 to January 9, 2015																				
1/9/2015		33855	14299	160	6	1.96E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
3/13/2015		35189	15099	160	14	4.56E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse-off period March 13, 2015 to May 15, 2015																				
5/15/2015		35194	15102	160	10	3.26E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
7/16/2015		36677	15992	160	12	3.91E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse-off period July 16, 2015 to September 22, 2015																				
9/22/2015		36680	15994	160	14	4.56E-05	2.3 U	0.00E+00	23 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	9.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00
11/20/2015		38094	16842	160	14	4.56E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse-off period November 20, 2015 to January 19, 2016																				
1/19/2016		38101	16846	160	7	2.15E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
3/18/2016		39377	17612	160	11	3.59E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse-off period March 18, 2016 to May 19, 2016																				
5/19/2016		39382	17615	160	4.2	1.37E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.6 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
7/22/2016		40915	17921	160	9	2.93E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.2 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
Pulse-off period July 22, 2016 to September 20, 2016																				
9/20/2016		40918	17923	160	8.5	2.77E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
11/28/2016		42571	18915	160	2.3	7.50E-06	1.0 U	0.00E+00	10 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.2 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00
Pulse-off period November 28, 2016 to January 24, 2017																				
1/24/2017		42575	18917	170	2.7	9.35E-06	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.6 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
3/23/2017		43840	19676	160	6.1	1.99E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.2 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00

Table 4.3
Cell 3 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
Pulse -off period November 18, 2013 to January 15, 2014																
1/15/2014		28218	10916	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	9.57E-04	136.88
3/14/2014		29432	11645	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.9 U	0.00E+00	3.48E-04	137.13
Pulse -off period March 14, 2014 to May 15, 2014																
5/15/2014		29914	11934	160	2.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	23 U	0.00E+00	9.3 U	0.00E+00	2.92E-03	137.98
7/23/2014		31567	12926	160	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	14 U	0.00E+00	5.6 U	0.00E+00	5.42E-04	138.52
Pulse -off period July 23, 2014 to September 16, 2014																
9/16/2014		32432	13445	160	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	24 U	0.00E+00	9.5 U	0.00E+00	1.48E-03	139.28
11/14/2014		33847	14294	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12	1.73E-05	4.6 U	0.00E+00	7.90E-04	139.95
Pulse -off period November 14, 2014 to January 9, 2015																
1/9/2015		33855	14299	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	8.53E-04	139.96
3/13/2015		35189	15099	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	7.79E-04	140.58
Pulse -off period March 13, 2015 to May 15, 2015																
5/15/2015		35194	15102	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	1.10E-03	140.58
7/16/2015		36677	15992	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.9 U	0.00E+00	7.29E-04	141.23
Pulse -off period July 16, 2015 to September 22, 2015																
9/22/2015		36680	15994	160	2.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	23 U	0.00E+00	9.3 U	0.00E+00	1.93E-03	141.24
11/20/2015		38094	16842	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	3.11E-04	141.50
Pulse -off period November 20, 2015 to January 19, 2016																
1/19/2016		38101	16846	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	3.05E-04	141.50
3/18/2016		39377	17612	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	2.80E-04	141.72
Pulse -off period March 18, 2016 to May 19, 2016																
5/19/2016		39382	17615	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.6 U	0.00E+00	1.12E-03	141.72
7/22/2016		40915	17921	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.2 U	0.00E+00	5.02E-04	141.87
Pulse -off period July 22, 2016 to September 20, 2016																
9/20/2016		40918	17923	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	8.43E-04	141.87
11/28/2016		42571	18915	160	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	10 U	0.00E+00	4.2 U	0.00E+00	1.04E-04	141.98
Pulse -off period November 28, 2016 to January 24, 2017																
1/24/2017		42575	18917	170	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.6 U	0.00E+00	1.74E-04	141.98
3/23/2017		43840	19676	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.2 U	0.00E+00	4.98E-04	142.36
Pulse -off period March 23, 2017 to May 15, 2017																
5/15/2017		43846	19680	160	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	10 U	0.00E+00	4.2 U	0.00E+00	4.51E-04	142.36
7/20/2017		45423	20626	170	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.6 U	0.00E+00	3.71E-04	142.71
Pulse -off period July 20, 2017 to September 14, 2017																
9/14/2017		45432	20632	160	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	4.68E-04	142.71
11/17/2017		46966	21552	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	1.94E-04	142.89

Table 4.3
Cell 3 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT																				
Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
Pulse -off period November 17, 2017 to January 22, 2018																				
1/22/2018		46970	21554	160	63	2.08E-04	1.2 U	0.00E+00	2.9	7.12E-06	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8	1.97E-05
3/23/2018		48239	22316	160	35	1.16E-04	1.4 U	0.00E+00	1.9	4.66E-06	1.4 U	0.00E+00	1.4 U	0.00E+00	1.5	3.61E-06	1.4 U	0.00E+00	1.4 U	0.00E+00
Pulse -off period March 23, 2018 to May 21, 2018																				
5/21/2018		48242	22318	160	51	1.69E-04	1.2 U	0.00E+00	2.2	5.40E-06	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8	1.97E-05
7/26/2018		49825	23267	160	43	1.42E-04	1.0 U	0.00E+00	3.6	8.84E-06	1.0 U	0.00E+00	1.0 U	0.00E+00	1.3	3.13E-06	1.0 U	0.00E+00	13	5.35E-05
Pulse -off period July 26, 2018 to September 17, 2018																				
9/17/2018		51096	24030	160	110	3.64E-04	1.3 U	0.00E+00	4.7	1.15E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	11	4.52E-05
11/19/2018		52604	24935	160	23	7.61E-05	1.3 U	0.00E+00	3.6	8.84E-06	1.3 U	0.00E+00	1.3 U	0.00E+00	1.7	4.09E-06	1.3 U	0.00E+00	3.1	1.28E-05
Pulse -off period November 19, 2018 to January 21, 2019																				
1/21/2019		52607	24937	160	44	1.46E-04	1.2 U	0.00E+00	3.6	8.84E-06	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	5.7	2.34E-05
3/21/2019		53941	25737	160	42	1.39E-04	1.3 U	0.00E+00	5.5	1.35E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	2.7	6.49E-06	1.3 U	0.00E+00	2.4	9.87E-06
Pulse -off period March 21, 2019 to May 24, 2019																				
5/24/2019		53943	25738	175	65	2.35E-04	1.3 U	0.00E+00	6.5	1.75E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	2.5	6.58E-06	1.3 U	0.00E+00	3	1.35E-05
7/29/2019		55529	26690	160	190	6.29E-04	1.5 U	0.00E+00	16.0	3.93E-05	1.5 U	0.00E+00	2.2	5.29E-06	5.8	1.39E-05	1.5 U	0.00E+00	12	4.94E-05
Pulse -off period July 29, 2019 to September 27, 2019																				
9/27/2019		55531	26691	180	330	1.23E-03	1.4 U	0.00E+00	13.0	3.59E-05	1.4 U	0.00E+00	2.5	6.76E-06	1.8	4.87E-06	1.4 U	0.00E+00	19	8.79E-05
12/9/2019		57186	34312	180	160	5.96E-04	1.2 U	0.00E+00	5.8	1.60E-05	1.2 U	0.00E+00	2.4	6.49E-06	2.6	7.03E-06	1.2 U	0.00E+00	9.4	4.35E-05
Pulse -off period December 9, 2019 to January 21, 2020																				
1/21/2020		57189	34313	180	160	5.96E-04	1.3 U	0.00E+00	5.5	1.52E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	2.1	5.68E-06	1.3 U	0.00E+00	6.8	3.15E-05
3/20/2020		58462	35077	180	43	1.60E-04	1.3 U	0.00E+00	3.4	9.39E-06	1.3 U	0.00E+00	1.3 U	0.00E+00	1.8	4.87E-06	1.3 U	0.00E+00	3.2	1.48E-05
Pulse -off period March 20, 2020 to May 21, 2020																				
5/21/2020		58464	35078	180	67	2.49E-04	1.2 U	0.00E+00	3.9	1.08E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	3.1	1.43E-05

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library

SCFM standard cubic feet per minute

J Indicates estimated value.

The analyte was detected in the method, field and/or trip

B blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.3
Cell 3 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse-off period November 17, 2017 to January 22, 2018																				
1/22/2018		46970	21554	160	5.9	1.92E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
3/23/2018		48239	22316	160	5.8	1.89E-05	1.4 U	0.00E+00	14 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00
Pulse-off period March 23, 2018 to May 21, 2018																				
5/21/2018		48242	22318	160	5.9	1.92E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
7/26/2018		49825	23267	160	11.0	3.59E-05	1.0 U	0.00E+00	10 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.2 U	0.00E+00	1.1	2.13E-06	1.0 U	0.00E+00
Pulse-off period July 26, 2018 to September 17, 2018																				
9/17/2018		51096	24030	160	11.0	3.59E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.2 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
11/19/2018		52604	24935	160	8.2	2.67E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
Pulse-off period November 19, 2018 to January 21, 2019																				
1/21/2019		52607	24937	160	4.1	1.34E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	5.0 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
3/21/2019		53941	25737	160	6.4	2.09E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.4 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
Pulse-off period March 21, 2019 to May 24, 2019																				
5/24/2019		53943	25738	175	5.6	2.00E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.1 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
7/29/2019		55529	26690	160	7.4	2.41E-05	1.5 U	0.00E+00	15 U	0.00E+00	1.5 U	0.00E+00	1.5 U	0.00E+00	6.1 U	0.00E+00	1.5 U	0.00E+00	1.5 U	0.00E+00
Pulse-off period July 29, 2019 to September 27, 2019																				
9/27/2019		55531	26691	180	8.4	3.08E-05	1.4 U	0.00E+00	14 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.5 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00
12/9/2019		57186	34312	180	7.8	2.86E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse-off period December 9, 2019 to January 21, 2020																				
1/21/2020		57189	34313	180	5.3	1.94E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.2 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
3/20/2020		58462	35077	180	6.4	2.35E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.2 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
Pulse-off period March 20, 2020 to May 21, 2020																				
5/21/2020		58464	35078	180	3.9	1.43E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library

SCFM standard cubic feet per minute

J Indicates estimated value.

The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.3
Cell 3 - Phase 1 SVE System Effluent Data
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 3 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 3 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
Pulse -off period November 17, 2017 to January 22, 2018																
1/22/2018		46970	21554	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.9 U	0.00E+00	2.55E-04	142.89
3/23/2018		48239	22316	160	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	14 U	0.00E+00	5.4 U	0.00E+00	1.43E-04	143.00
Pulse -off period March 23, 2018 to May 21, 2018																
5/21/2018		48242	22318	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.9 U	0.00E+00	2.13E-04	143.00
7/26/2018		49825	23267	160	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	10 U	0.00E+00	4.2 U	0.00E+00	2.46E-04	143.23
Pulse -off period July 26, 2018 to September 17, 2018																
9/17/2018		51096	24030	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.2 U	0.00E+00	4.57E-04	143.58
11/19/2018		52604	24935	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.3 U	0.00E+00	1.29E-04	143.70
Pulse -off period November 19, 2018 to January 21, 2019																
1/21/2019		52607	24937	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	5.2 U	0.00E+00	1.91E-04	143.70
3/21/2019		53941	25737	160	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.4 U	0.00E+00	1.90E-04	143.85
Pulse -off period March 21, 2019 to May 24, 2019																
5/24/2019		53943	25738	175	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.1 U	0.00E+00	2.93E-04	143.85
7/29/2019		55529	26690	160	1.5 U	0.00E+00	1.5 U	0.00E+00	1.5 U	0.00E+00	15 U	0.00E+00	6.1 U	0.00E+00	7.61E-04	144.57
Pulse -off period July 29, 2019 to September 27, 2019																
9/27/2019		55531	26691	180	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	14 U	0.00E+00	5.5 U	0.00E+00	1.39E-03	144.58
12/9/2019		57186	34312	180	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.9 U	0.00E+00	6.97E-04	149.89
Pulse -off period December 9, 2019 to January 21, 2020																
1/21/2020		57189	34313	180	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.2 U	0.00E+00	6.67E-04	149.89
3/20/2020		58462	35077	180	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.2 U	0.00E+00	2.13E-04	150.05
Pulse -off period March 20, 2020 to May 21, 2020																
5/21/2020		58464	35078	180	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	2.89E-04	150.05

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library
SCFM standard cubic feet per minute

J Indicates estimated value.

B The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.4
Cell 4 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
3/11/2011		222	222	500	150000	1.55E+00	600 U	0.00E+00	1800	1.38E-02	600 U	0.00E+00	860	6.46E-03	1400	1.05E-02	600 U	0.00E+00
3/18/2011		366	366	500	41000	4.24E-01	150 U	0.00E+00	1000	7.67E-03	150 U	0.00E+00	250	1.88E-03	460	3.46E-03	150 U	0.00E+00
3/18/2011	Dup	366	366	500	40000	4.14E-01	130 U	0.00E+00	1000	7.67E-03	130 U	0.00E+00	300	2.25E-03	480	3.61E-03	130 U	0.00E+00
3/25/2011		463	463	500	22000	2.28E-01	62 U	0.00E+00	980	7.52E-03	62 U	0.00E+00	87	6.54E-04	290	2.18E-03	62 U	0.00E+00
3/30/2011		558	558	500	25000	2.59E-01	68 U	0.00E+00	820	6.29E-03	68 U	0.00E+00	190	1.43E-03	290	2.18E-03	68 U	0.00E+00
4/8/2011		764	764	500	22000	2.28E-01	80 U	0.00E+00	1000	7.67E-03	80 U	0.00E+00	170	1.28E-03	340	2.56E-03	80 U	0.00E+00
4/15/2011		924	924	500	18000	1.86E-01	84 U	0.00E+00	930	7.13E-03	84 U	0.00E+00	110	8.27E-04	280	2.10E-03	84 U	0.00E+00
4/15/2011	Dup	924	924	500	16000 J	1.65E-01	60 U	0.00E+00	820 J	6.29E-03	60 U	0.00E+00	60 UJ	0.00E+00	260 J	1.95E-03	60 U	0.00E+00
5/19/2011		1685	1685	500	11000	1.14E-01	11 U	0.00E+00	640	4.91E-03	11 U	0.00E+00	100	7.52E-04	190	1.43E-03	11 U	0.00E+00
6/16/2011		2191	2191	420	10000	8.69E-02	11 U	0.00E+00	530	3.42E-03	11 U	0.00E+00	110 J	6.94E-04	160	1.01E-03	11 U	0.00E+00
6/16/2011	Dup	2191	2191	420	9600	8.34E-02	11 U	0.00E+00	510	3.29E-03	11 U	0.00E+00	110 J	6.94E-04	160	1.01E-03	11 U	0.00E+00
7/15/2011		2750	2750	420	7600	6.60E-02	24 U	0.00E+00	290	1.87E-03	24 U	0.00E+00	58	3.66E-04	79	4.99E-04	24 U	0.00E+00
8/22/2011		3133	3133	420	9000	7.82E-02	27 U	0.00E+00	410	2.64E-03	27 U	0.00E+00	92	5.81E-04	160	1.01E-03	27 U	0.00E+00
8/22/2011	Dup	3133	3133	420	9000	7.82E-02	22 U	0.00E+00	400	2.58E-03	22 U	0.00E+00	80	5.05E-04	150	9.47E-04	22 U	0.00E+00
9/15/2011		3630	3630	420	7000	6.08E-02	22 U	0.00E+00	250	1.61E-03	22 U	0.00E+00	55	3.47E-04	97	6.12E-04	22 U	0.00E+00
10/14/2011		4226	4226	420	4400	3.82E-02	19 U	0.00E+00	180	1.16E-03	19 U	0.00E+00	59	3.72E-04	60	3.79E-04	19 U	0.00E+00
11/21/2011		5019	5019	380	3700	2.91E-02	16 U	0.00E+00	170	9.91E-04	16 U	0.00E+00	320	1.83E-03	63	3.60E-04	16 U	0.00E+00
12/14/2011		5343	5343	260	4000	2.15E-02	19 U	0.00E+00	140	5.58E-04	19 U	0.00E+00	300	1.17E-03	55	2.15E-04	19 U	0.00E+00
1/19/2012		5993	5993	0	5200	0.00E+00	24 U	0.00E+00	160	0.00E+00	24 U	0.00E+00	58	0.00E+00	38	0.00E+00	24 U	0.00E+00
2/15/2012		6368	6368	260	4200	2.26E-02	19 U	0.00E+00	100	3.99E-04	19 U	0.00E+00	700	2.74E-03	53	2.07E-04	19 U	0.00E+00
3/15/2012		6946	6946	350	4000	2.90E-02	15 U	0.00E+00	120	6.44E-04	15 U	0.00E+00	38	2.00E-04	38	2.00E-04	15 U	0.00E+00
4/19/2012		7629	7629	380	5200	4.09E-02	16 U	0.00E+00	160	9.33E-04	16 U	0.00E+00	42	2.40E-04	43	2.46E-04	16 U	0.00E+00
5/16/2012		8143	8143	420	4100	3.56E-02	15 U	0.00E+00	110	7.09E-04	15 U	0.00E+00	43	2.71E-04	40	2.53E-04	15 U	0.00E+00
Pulse -off period June 1, 2012 to August 14, 2012																		
8/14/2012		8546	8546	420	5000	4.34E-02	16 U	0.00E+00	98	6.32E-04	16 U	0.00E+00	66	4.17E-04	27	1.70E-04	16 U	0.00E+00
9/17/2012		9033	9033	470	3700	3.60E-02	15 U	0.00E+00	140	1.01E-03	15 U	0.00E+00	15 U	0.00E+00	26	1.84E-04	15 U	0.00E+00
Pulse -off period September 17, 2012 to November 15, 2012																		
11/15/2012		9037	9037	420	4900 J	4.26E-02	28 U	0.00E+00	74 J	4.77E-04	28 U	0.00E+00	110 J	6.94E-04	29 J	1.83E-04	28 U	0.00E+00
11/15/2012	Dup	9037	9037	420	8700	7.56E-02	24 U	0.00E+00	200 J	1.29E-03	24 U	0.00E+00	220	1.39E-03	360 J	2.27E-03	24 U	0.00E+00
12/14/2012		9439	9439	150	500	1.55E-03	1.9 U	0.00E+00	14	3.22E-05	1.9 U	0.00E+00	6.8	1.53E-05	18	4.06E-05	1.9 U	0.00E+00
Pulse -off period December 14, 2012 to February 26, 2013																		
2/26/2013		9439	9439	0	520	0.00E+00	2.2 U	0.00E+00	23	0.00E+00	2.2 U	0.00E+00	5.7	0.00E+00	28	0.00E+00	2.2 U	0.00E+00
4/11/2013		9876	9876	340	430	3.02E-03	1.8 U	0.00E+00	26	1.36E-04	1.8 U	0.00E+00	7.1	3.63E-05	28	1.43E-04	1.8 U	0.00E+00
Pulse -off period April 11, 2013 to May 10, 2013																		
5/10/2013		9882	9882	340	270	1.90E-03	1.1 U											

Table 4.4
Cell 4 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	Tetrachloroethene		Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
3/11/2011		222	222	500	7200	9.26E-02	3900	3.97E-02	600 U	0.00E+00	600 U	0.00E+00	600 U	0.00E+00	600 U	0.00E+00	2400 U	0.00E+00	600 U	0.00E+00
3/18/2011		366	366	500	2900	3.73E-02	1600	1.63E-02	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00	150 U	0.00E+00	750 J	3.75E-03	150 U	0.00E+00
3/18/2011	Dup	366	366	500	3000	3.86E-02	1600	1.63E-02	130 UJ	0.00E+00	130 U	0.00E+00	130 U	0.00E+00	130 U	0.00E+00	1100 J	5.50E-03	130 U	0.00E+00
3/25/2011		463	463	500	3200	4.11E-02	970	9.88E-03	62 U	0.00E+00	61 NJ	4.02E-04	62 U	0.00E+00	62 U	0.00E+00	610	3.05E-03	62 U	0.00E+00
3/30/2011		558	558	500	2500	3.21E-02	1000	1.02E-02	68 U	0.00E+00	68 U	0.00E+00	68 U	0.00E+00	68 U	0.00E+00	470	2.35E-03	68 U	0.00E+00
4/8/2011		764	764	500	2400	3.09E-02	1000	1.02E-02	80 U	0.00E+00	80 U	0.00E+00	80 U	0.00E+00	80 U	0.00E+00	430	2.15E-03	80 U	0.00E+00
4/15/2011		924	924	500	1700	2.19E-02	920	9.37E-03	84 U	0.00E+00	84 U	0.00E+00	84 U	0.00E+00	84 U	0.00E+00	340 U	0.00E+00	84 U	0.00E+00
4/15/2011	Dup	924	924	500	1500 J	1.93E-02	830 J	8.45E-03	60 U	0.00E+00	60 U	0.00E+00	60 U	0.00E+00	60 U	0.00E+00	260 J	1.30E-03	60 U	0.00E+00
5/19/2011		1685	1685	500	1400	1.80E-02	530	5.40E-03	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	67	3.35E-04	26	1.57E-04
6/16/2011		2191	2191	420	1000	1.08E-02	410	3.51E-03	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	46 U	0.00E+00	14	7.12E-05
6/16/2011	Dup	2191	2191	420	960	1.04E-02	400	3.42E-03	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	45 U	0.00E+00	12	6.10E-05
7/15/2011		2750	2750	420	570	6.16E-03	250	2.14E-03	24 U	0.00E+00	28	1.55E-04	24 U	0.00E+00	24 U	0.00E+00	95 U	0.00E+00	24 U	0.00E+00
8/22/2011		3133	3133	420	920	9.93E-03	380	3.25E-03	27 U	0.00E+00	27 U	0.00E+00	27 U	0.00E+00	27 U	0.00E+00	110 U	0.00E+00	27 U	0.00E+00
8/22/2011	Dup	3133	3133	420	940	1.02E-02	360	3.08E-03	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	90 U	0.00E+00	22 U	0.00E+00
9/15/2011		3630	3630	420	660	7.13E-03	270	2.31E-03	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	22 U	0.00E+00	90 U	0.00E+00	22 U	0.00E+00
10/14/2011		4226	4226	420	390	4.21E-03	180	1.54E-03	19 U	0.00E+00	19 U	0.00E+00	19 U	0.00E+00	19 U	0.00E+00	77 U	0.00E+00	19 U	0.00E+00
11/21/2011		5019	5019	380	360	3.52E-03	180	1.39E-03	16 U	0.00E+00	160 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	63 U	0.00E+00	16 U	0.00E+00
12/14/2011		5343	5343	260	360	2.41E-03	160	8.47E-04	19 U	0.00E+00	190 U	0.00E+00	19 U	0.00E+00	19 U	0.00E+00	74 U	0.00E+00	19 U	0.00E+00
1/19/2012		5993	5993	0	320	0.00E+00	180	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	97 U	0.00E+00	24 U	0.00E+00
2/15/2012		6368	6368	260	280	1.87E-03	150	7.94E-04	19 U	0.00E+00	19 U	0.00E+00	19 U	0.00E+00	19 U	0.00E+00	78 U	0.00E+00	19 U	0.00E+00
3/15/2012		6946	6946	350	240	2.16E-03	140	9.98E-04	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	58 U	0.00E+00	15 U	0.00E+00
4/19/2012		7629	7629	380	400	3.91E-03	180	1.39E-03	16 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	62 U	0.00E+00	16 U	0.00E+00
5/16/2012		8143	8143	420	320	3.46E-03	150	1.28E-03	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	61 U	0.00E+00	15 U	0.00E+00
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		8546	8546	420	490	5.29E-03	180	1.54E-03	16 U	0.00E+00	160 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	63 U	0.00E+00	16 U	0.00E+00
9/17/2012		9033	9033	470	410	4.95E-03	220	2.11E-03	15 U	0.00E+00	150 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	61 U	0.00E+00	15 U	0.00E+00
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		9037	9037	420	260 J	2.81E-03	150 J	1.28E-03	28 U	0.00E+00	280 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	110 U	0.00E+00	28 U	0.00E+00
11/15/2012	Dup	9037	9037	420	1200 J	1.30E-02	390 J	3.34E-03	24 U	0.00E+00	240 U	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	94 U	0.00E+00	24 U	0.00E+00
12/14/2012		9439	9439	150	62	2.39E-04	28	8.56E-05	1.9 U	0.00E+00	19 U	0.00E+00	1.9 U	0.00E+00	1.9 U	0.00E+00</				

Table 4.4
Cell 4 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	Toluene		Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
3/11/2011	Dup	222	222	500	600 U	0.00E+00	600 U	0.00E+00	710	5.84E-03	600 U	0.00E+00	2400 U	0.00E+00	2400 U	0.00E+00	1.72E+00	381.87
3/18/2011		366	366	500	620 J	4.43E-03	150 U	0.00E+00	240	1.98E-03	200	1.65E-03	1500 J	6.75E-03	590 U	0.00E+00	5.09E-01	453.50
3/18/2011		366	366	500	380 J	2.71E-03	130 U	0.00E+00	250	2.06E-03	240	1.98E-03	690 J	3.11E-03	540 U	0.00E+00	4.97E-01	453.50
3/25/2011		463	463	500	140	1.00E-03	62 U	0.00E+00	78	6.42E-04	67	5.51E-04	250 U	0.00E+00	250 U	0.00E+00	2.95E-01	482.07
3/30/2011		558	558	500	190	1.36E-03	68 U	0.00E+00	250	2.06E-03	140	1.15E-03	270 U	0.00E+00	270 U	0.00E+00	3.18E-01	512.25
4/8/2011		764	764	500	200	1.43E-03	120	9.88E-04	560	4.61E-03	260	2.14E-03	320 U	0.00E+00	320 U	0.00E+00	2.91E-01	572.27
4/15/2011		924	924	500	170	1.21E-03	110	9.05E-04	540	4.44E-03	260	2.14E-03	340 U	0.00E+00	340 U	0.00E+00	2.36E-01	610.05
4/15/2011		924	924	500	140 J	1.00E-03	99 J	8.15E-04	540 J	4.44E-03	230 J	1.89E-03	240 J,B	1.08E-03	240 U	0.00E+00	2.12E-01	610.05
5/19/2011		1685	1685	500	100	7.14E-04	140	1.15E-03	920	7.57E-03	420	3.46E-03	81	3.65E-04	43 U	0.00E+00	1.58E-01	730.28
6/16/2011		2191	2191	420	51	3.06E-04	83	5.74E-04	600	4.15E-03	280	1.94E-03	46 J,B	1.74E-04	46 U	0.00E+00	1.14E-01	753.86
6/16/2011		2191	2191	420	53	3.18E-04	78	5.39E-04	580	4.01E-03	270	1.87E-03	69 J,B	2.61E-04	45 U	0.00E+00	1.09E-01	785.55
7/15/2011		2750	2750	420	28	1.68E-04	41	2.83E-04	270	1.87E-03	120	8.30E-04	180	6.81E-04	95 U	0.00E+00	8.10E-02	830.85
8/22/2011		3133	3133	420	35 J	2.10E-04	59 J	4.08E-04	340	2.35E-03	140	9.68E-04	110 U	0.00E+00	110 U	0.00E+00	9.95E-02	868.97
8/22/2011		3133	3133	420	22 UJ	0.00E+00	30 J	2.07E-04	310	2.14E-03	130	8.99E-04	90 U	0.00E+00	90 U	0.00E+00	9.87E-02	868.65
9/15/2011		3630	3630	420	22 U	0.00E+00	31	2.14E-04	340	2.35E-03	130	8.99E-04	90 U	0.00E+00	90 U	0.00E+00	7.63E-02	906.88
10/14/2011		4226	4226	420	38	2.28E-04	19 U	0.00E+00	170	1.18E-03	70	4.84E-04	77 U	0.00E+00	77 U	0.00E+00	4.78E-02	935.35
11/21/2011		5019	5019	380	16 U	0.00E+00	17	1.06E-04	220	1.38E-03	100	6.25E-04	160 U	0.00E+00	63 U	0.00E+00	3.93E-02	966.50
12/14/2011		5343	5343	260	19 U	0.00E+00	19 U	0.00E+00	76	3.25E-04	55	2.35E-04	190 UJ	0.00E+00	74 U	0.00E+00	2.73E-02	975.34
1/19/2012		5993	5993	0	36	0.00E+00	24 U	0.00E+00	78	0.00E+00	50	0.00E+00	97 U	0.00E+00	97 U	0.00E+00	0.00E+00	975.34
2/15/2012		6368	6368	260	19 U	0.00E+00	19 U	0.00E+00	58	2.48E-04	40	1.71E-04	300	7.02E-04	78 U	0.00E+00	2.97E-02	986.48
3/15/2012		6946	6946	350	15 U	0.00E+00	15 U	0.00E+00	44	2.53E-04	31	1.79E-04	58 U	0.00E+00	58 U	0.00E+00	3.36E-02	1005.89
4/19/2012		7629	7629	380	16 U	0.00E+00	16 U	0.00E+00	48	3.00E-04	33	2.06E-04	62 U	0.00E+00	62 U	0.00E+00	4.81E-02	1038.74
5/16/2012		8143	8143	420	15 U	0.00E+00	15 U	0.00E+00	28	1.94E-04	23	1.59E-04	61 U	0.00E+00	61 U	0.00E+00	4.19E-02	1060.30
Pulse -off period June 1, 2012 to August 14, 2012																		
8/14/2012		8546	8546	420	16 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	160 U	0.00E+00	63 U	0.00E+00	5.15E-02	1081.05
9/17/2012		9033	9033	470	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	150 U	0.00E+00	61 U	0.00E+00	4.42E-02	1102.58
Pulse -off period September 17, 2012 to November 15, 2012																		
11/15/2012	Dup	9037	9037	420	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	28 U	0.00E+00	280 U	0.00E+00	110 U	0.00E+00	4.80E-02	1102.78
11/15/2012		9037	9037	420	24 U	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	24 U	0.00E+00	240 U	0.00E+00	94 U	0.00E+00	9.68E-02	-
12/14/2012		9439	9439	150	1.9 U	0.00E+00	1.9 U	0.00E+00	1.9 U	0.00E+00	1.9 U	0.00E+00	19 U	0.00E+00	7.5 U	0.00E+00	1.96E-03	1103.57
Pulse -off period December 14, 2012 to February 26, 2013																		
2/26/2013		9439	9439	0	2.2 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	22 U	0.00E+00	8.7 U	0.00E+00	0.00E+00	1103.57
4/11/2013		9876	9876															

Table 4.4
Cell 4 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT																		
Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period November 18, 2013 to March 14, 2014																		
1/15/2014		11997	11997	320	200	1.32E-03	1.2 U	0.00E+00	5.5	2.70E-05	1.2 U	0.00E+00	3.3	1.59E-05	9.6	4.62E-05	1.2 U	0.00E+00
3/14/2014		12980	12980	180	430	1.60E-03	2.6 U	0.00E+00	6.2	1.71E-05	2.6 U	0.00E+00	8.2	2.22E-05	18	4.87E-05	2.6 U	0.00E+00
Pulse -off period March 14, 2014 to May 15, 2014																		
5/15/2014		12986	12986	180	470	1.75E-03	1.1 U	0.00E+00	10	2.76E-05	1.1 U	0.00E+00	6.9	1.87E-05	22	5.95E-05	1.1 U	0.00E+00
7/23/2014		14627	14627	300	14	8.69E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.6	0.00E+00	1.3 U	0.00E+00
Pulse -off period July 23, 2014 to September 16, 2014																		
9/16/2014		14634	14628	320	150	9.93E-04	1.2 U	0.00E+00	9	4.42E-05	1.2 U	0.00E+00	1.7	8.18E-06	15	7.21E-05	1.2 U	0.00E+00
11/14/2014		16008	16008	320	220	1.46E-03	0.96 U	0.00E+00	5	2.45E-05	0.96 U	0.00E+00	3.6	1.73E-05	8.9	4.28E-05	0.96 U	0.00E+00
Pulse -off period November 14, 2014 to January 9, 2015																		
1/9/2015		16015	16015	260	150	8.07E-04	1.1 U	0.00E+00	4.1	1.64E-05	1.1 U	0.00E+00	2.2	8.60E-06	7.4	2.89E-05	1.1 U	0.00E+00
3/13/2015		17178	17178	220	190	8.65E-04	1.2 U	0.00E+00	4.9	1.65E-05	1.2 U	0.00E+00	3.1	1.03E-05	5.5	1.82E-05	1.2 U	0.00E+00
Pulse -off period March 13, 2015 to May 15, 2015																		
5/15/2015		17186	17186	320	180	1.19E-03	2.6 U	0.00E+00	4.3	2.11E-05	2.6 U	0.00E+00	2.8	1.35E-05	5.2	2.50E-05	2.6 U	0.00E+00
7/16/2015		18436	18436	310	270	1.73E-03	1.2 U	0.00E+00	7.7	3.66E-05	1.2 U	0.00E+00	4	1.86E-05	13	6.06E-05	1.2 U	0.00E+00
Pulse -off period July 16, 2015 to September 22, 2015																		
9/22/2015		18439	18439	300	200	1.24E-03	1.1 U	0.00E+00	6.3	2.90E-05	1.1 U	0.00E+00	2.1	9.47E-06	11	4.96E-05	1.1 U	0.00E+00
11/20/2015		19832	19832	530	170	1.86E-03	1.2 U	0.00E+00	7	5.69E-05	1.2 U	0.00E+00	2.6	2.07E-05	12	9.56E-05	1.2 U	0.00E+00
Pulse -off period November 20, 2015 to January 19, 2016																		
1/19/2016		19841	19841	380	39	3.07E-04	1.1 U	0.00E+00	1.7	9.91E-06	1.1 U	0.00E+00	1.1 U	0.00E+00	3.4	1.94E-05	1.1 U	0.00E+00
3/18/2016		21088	21088	420	88	7.64E-04	1.1 U	0.00E+00	5	3.22E-05	1.1 U	0.00E+00	1.2	7.57E-06	6.8	4.29E-05	1.1 U	0.00E+00
Pulse -off period March 18, 2016 to May 19, 2016																		
5/19/2016		21092	21092	180	9.3	3.46E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
5/19/2016	Dup	21092	21092	180	14	5.21E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.6	4.33E-06	1.1 U	0.00E+00
7/22/2016		22610	22610	230	33	1.57E-04	1.0 U	0.00E+00	1.9	6.70E-06	1.0 U	0.00E+00	1.0 U	0.00E+00	3.5	1.21E-05	1.0 U	0.00E+00
Pulse -off period July 22, 2016 to September 20, 2016																		
9/20/2016*		22611	22611	180	33	1.23E-04	1.0 U	0.00E+00	1.9	5.25E-06	1.0 U	0.00E+00	1.0 U	0.00E+00	3.5	9.47E-06	1.0 U	0.00E+00
11/28/2016		24162	24162	100	17	3.52E-05	1.1 U	0.00E+00	1.7	2.61E-06	1.1 U	0.00E+00	1.1 U	0.00E+00	1.9	2.86E-06	1.1 U	0.00E+00

Table 4.4
Cell 4 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	Tetrachloroethene		Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period November 18, 2013 to March 14, 2014																				
1/15/2014		11997	11997	320	51	4.20E-04	11	7.17E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00
3/14/2014		12980	12980	180	7.8	3.61E-05	14	5.13E-05	2.6 U	0.00E+00	26 U	0.00E+00	2.6 U	0.00E+00	2.6 U	0.00E+00	10 U	0.00E+00	2.6 U	0.00E+00
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		12986	12986	180	38	1.76E-04	17	6.23E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.6 U	0.00E+00	1.1 U	0.00E+00
7/23/2014		14627	14627	300	15	1.16E-04	2.4	1.47E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.2 U	0.00E+00	1.3 U	0.00E+00
Pulse -off period July 23, 2014 to September 16, 2014																				
9/16/2014		14634	14628	320	200	1.65E-03	39	2.54E-04	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	2	7.75E-06
11/14/2014		16008	16008	320	69	5.68E-04	12	7.82E-05	0.96 U	0.00E+00	9.6 U	0.00E+00	0.96 U	0.00E+00	0.96 U	0.00E+00	3.8 U	0.00E+00	0.96 U	0.00E+00
Pulse -off period November 14, 2014 to January 9, 2015																				
1/9/2015		16015	16015	260	50	3.34E-04	11	5.83E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.4 U	0.00E+00	1.1 U	0.00E+00
3/13/2015		17178	17178	220	27	1.53E-04	6.9	3.09E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.8 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period March 13, 2015 to May 15, 2015																				
5/15/2015		17186	17186	320	45	3.70E-04	9.8	6.39E-05	2.6 U	0.00E+00	26 U	0.00E+00	2.6 U	0.00E+00	2.6 U	0.00E+00	10 U	0.00E+00	2.6 U	0.00E+00
7/16/2015		18436	18436	310	130	1.04E-03	27	1.71E-04	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period July 16, 2015 to September 22, 2015																				
9/22/2015		18439	18439	300	200	1.54E-03	36	2.20E-04	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00
11/20/2015		19832	19832	530	120	1.64E-03	23	2.48E-04	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	5.0 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period November 20, 2015 to January 19, 2016																				
1/19/2016		19841	19841	380	62	6.06E-04	11	8.51E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00
3/18/2016		21088	21088	420	52	5.62E-04	11	9.41E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period March 18, 2016 to May 19, 2016																				
5/19/2016		21092	21092	180	14	6.48E-05	2.4	8.80E-06	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00
5/19/2016	Dup	21092	21092	180	21	9.72E-05	3.9	1.43E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00
7/22/2016		22610	22610	230	39	2.31E-04	7.5	3.51E-05	1.0 U	0.00E+00	10 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.2 U	0.00E+00	1.0 U	0.00E+00
Pulse -off period July 22, 2016 to September 20, 2016																				
9/20/2016*		22611	22611	180	39	1.80E-04	7.5	2.75E-05	1.0 U	0.00E+00	10 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.2 U	0.00E+00	1.0 U	0.00E+00
11/28/2016		24162	24162	100	14	3.60E-05	2.8	5.70E-06	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.4 U	0.00E+00	1.1 U	0.00E+00

Table 4.4
Cell 4 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	Toluene		Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
Pulse -off period November 18, 2013 to March 14, 2014																		
1/15/2014		11997	11997	320	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	1.90E-03	1110.91
3/14/2014		12980	12980	180	2.6 U	0.00E+00	2.6 U	0.00E+00	2.6 U	0.00E+00	2.6 U	0.00E+00	26 U	0.00E+00	10 U	0.00E+00	1.78E-03	1112.65
Pulse -off period March 14, 2014 to May 15, 2014																		
5/15/2014		12986	12986	180	3.9	1.00E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.6 U	0.00E+00	2.10E-03	1112.67
7/23/2014		14627	14627	300	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.2 U	0.00E+00	2.17E-04	1113.02
Pulse -off period July 23, 2014 to September 16, 2014																		
9/16/2014		14634	14628	320	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	21	6.05E-05	4.9 U	0.00E+00	3.09E-03	1113.03
11/14/2014		16008	16008	320	0.96 U	0.00E+00	0.96 U	0.00E+00	0.96 U	0.00E+00	0.96 U	0.00E+00	9.6 U	0.00E+00	3.8 U	0.00E+00	2.19E-03	1116.04
Pulse -off period November 14, 2014 to January 9, 2015																		
1/9/2015		16015	16015	260	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.4 U	0.00E+00	1.25E-03	1116.05
3/13/2015		17178	17178	220	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	1.09E-03	1117.32
Pulse -off period March 13, 2015 to May 15, 2015																		
5/15/2015		17186	17186	320	2.6 U	0.00E+00	2.6 U	0.00E+00	2.6 U	0.00E+00	2.6 U	0.00E+00	26 U	0.00E+00	10 U	0.00E+00	1.68E-03	1117.34
7/16/2015		18436	18436	310	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.9 U	0.00E+00	3.05E-03	1121.16
Pulse -off period July 16, 2015 to September 22, 2015																		
9/22/2015		18439	18439	300	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	3.09E-03	1121.16
11/20/2015		19832	19832	530	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	5.0 U	0.00E+00	3.92E-03	1126.63
Pulse -off period November 20, 2015 to January 19, 2016																		
1/19/2016		19841	19841	380	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	1.03E-03	1126.63
3/18/2016		21088	21088	420	2.7	1.62E-05	1.1 U	0.00E+00	9.7	6.71E-05	4.1	2.83E-05	11 U	0.00E+00	4.5 U	0.00E+00	1.61E-03	1128.65
Pulse -off period March 18, 2016 to May 19, 2016																		
5/19/2016		21092	21092	180	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	1.08E-04	1128.65
5/19/2016	Dup	21092	21092	180	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	1.68E-04	-
7/22/2016		22610	22610	230	1.2	3.94E-06	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	18	3.73E-05	4.2 U	0.00E+00	4.83E-04	1129.38
Pulse -off period July 22, 2016 to September 20, 2016																		
9/20/2016*		22611	22611	180	1.2	3.09E-06	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	18	2.92E-05	4.2 U	0.00E+00	3.78E-04	1129.38
11/28/2016		24162	24162	100	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.4 U	0.00E+00	8.23E-05	1129.51

Table 4.4
Cell 4 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT																		
Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period November 28, 2016 to January 24, 2017																		
1/24/2017		24166	24166	220	19	8.65E-05	1.1 U	0.00E+00	1.5	5.06E-06	1.1 U	0.00E+00	1.1 U	0.00E+00	1.5	4.96E-06	1.1 U	0.00E+00
1/24/2017	Dup	24166	24166	220	22	1.00E-04	1.1 U	0.00E+00	1.7	5.74E-06	1.1 U	0.00E+00	1.1 U	0.00E+00	1.5	4.96E-06	1.1 U	0.00E+00
3/23/2017		25427	25427	190	55	2.16E-04	1.2 U	0.00E+00	4.1	1.20E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	3.4	9.71E-06	1.2 U	0.00E+00
Pulse -off period March 23, 2017 to May 15, 2017																		
5/15/2017		25452	25452	180	25	9.31E-05	1.2 U	0.00E+00	1.6	4.42E-06	1.2 U	0.00E+00	1.2 U	0.00E+00	2	5.41E-06	1.2 U	0.00E+00
7/20/2017		26992	26992	410	100	8.48E-04	2.2 U	0.00E+00	5.6	3.52E-05	2.2 U	0.00E+00	2.2 U	0.00E+00	9.4	5.79E-05	2.2 U	0.00E+00
Pulse -off period July 20, 2017 to September 14, 2017																		
9/14/2017		27001	27001	420	120	1.04E-03	1.0 U	0.00E+00	5	3.22E-05	1.0 U	0.00E+00	1.0 U	0.00E+00	6.4	4.04E-05	1.0 U	0.00E+00
9/14/2017	Dup	-	-	-	120	-	1.0 U	-	5.1	-	1.0 U	-	1.0 U	-	6.6	-	1.0 U	-
11/17/2017		28486	28486	480	78	7.74E-04	1.1 U	0.00E+00	4.3	3.17E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	4.9	3.54E-05	1.1 U	0.00E+00
Pulse -off period November 17, 2017 to January 22, 2018																		
1/22/2018		28489	28489	460	63	5.99E-04	1.2 U	0.00E+00	2.5	1.76E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	3.0	2.07E-05	1.3	8.99E-06
3/23/2018		29726	29726	440	53	4.82E-04	1.3 U	0.00E+00	5.5	3.71E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	3.8	2.51E-05	1.3 U	0.00E+00
Pulse -off period March 23, 2018 to May 21, 2018																		
5/21/2018		29731	29731	410	39	3.31E-04	1.3 U	0.00E+00	3	1.89E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	2.5	1.54E-05	1.3 U	0.00E+00
5/21/2018	Dup	-	-	-	40	-	1.2 U	-	3.2	-	1.2 U	-	1.2 U	-	2.4	-	1.2 U	-
7/26/2018		30783	30783	410	55	4.66E-04	1.3 U	0.00E+00	5.6	3.52E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	8.6	5.30E-05	1.3 U	0.00E+00
Pulse -off period July 26, 2018 to September 17, 2018																		
9/17/2018		30791	30791	360	95	7.07E-04	1.3 U	0.00E+00	5.5	3.04E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	6.7	3.63E-05	1.3 U	0.00E+00
11/19/2018		32280	32280	410	25	2.12E-04	1.3 U	0.00E+00	2.8	1.76E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	3.3	2.03E-05	1.3 U	0.00E+00
Pulse -off period November 19, 2018 to January 21, 2019																		
1/21/2019		32284	32284	280	16	9.27E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
3/21/2019		33265	33265	300	32	1.99E-04	1.3 U	0.00E+00	3.6	1.66E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	4.0	1.80E-05	1.3 U	0.00E+00
Pulse -off period March 21, 2019 to May 24, 2019																		
5/24/2019		33269	33269	260	35	1.88E-04	1.4 U	0.00E+00	2.7	1.08E-05	1.4 U	0.00E+00	1.4 U	0.00E+00	2.9	1.13E-05	1.4 U	0.00E+00
7/29/2019		34775	34775	200	13	5.38E-05	1.4 U	0.00E+00	1.5	4.60E-06	1.4 U	0.00E+00	1.4 U	0.00E+00	2.1	6.31E-06	1.4 U	0.00E+00
Pulse -off period July 29, 2019 to September 27, 2019																		
9/27/2019		34779	34779	100	20	4.14E-05	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00
12/9/2019		36495	36495	180	9.3	3.46E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period December 9, 2019 to January 21, 2020																		
1/21/2020		36523	36523	260	8.2	4.41E-05	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00
3/20/2020		37827	37827	100	24	4.96E-05	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00
Pulse -off period March 20, 2020 to May 21, 2020																		
5/21/2020		37827	37827	320	18	1.19E-04	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2	5.77E-06		

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library

Table 4.4
Cell 4 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT																				
Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	Tetrachloroethene		Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period	November 28, 2016 to January 24, 2017																			
1/24/2017		24166	24166	220	18	1.02E-04	4	1.79E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00
1/24/2017	Dup	24166	24166	220	19	1.07E-04	4	1.79E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00
3/23/2017		25427	25427	190	20	9.77E-05	4.5	1.74E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period	March 23, 2017 to May 15, 2017																			
5/15/2017		25452	25452	180	21	9.72E-05	4.1	1.50E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00
7/20/2017		26992	26992	410	150	1.58E-03	28	2.34E-04	2.2 U	0.00E+00	22 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	8.6 U	0.00E+00	2.2 U	0.00E+00
Pulse -off period	July 20, 2017 to September 14, 2017																			
9/14/2017		27001	27001	420	240	2.59E-03	46	3.94E-04	1.0 U	0.00E+00	10 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.1 U	0.00E+00	1.0 U	0.00E+00
9/14/2017	Dup	-	-	-	240	-	46	-	1.0 U	-	11 U	-	1.0 U	-	1.0 U	-	4.5 U	-	1.0 U	-
11/17/2017		28486	28486	480	69	8.52E-04	16	1.56E-04	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period	November 17, 2017 to January 22, 2018																			
1/22/2018		28489	28489	460	45	5.32E-04	9.9	9.28E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00
3/23/2018		29726	29726	440	39	4.41E-04	8.3	7.44E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.0 U	0.00E+00	1.3 U	0.00E+00
Pulse -off period	March 23, 2018 to May 21, 2018																			
5/21/2018		29731	29731	410	45	4.74E-04	9	7.52E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.2 U	0.00E+00	1.3 U	0.00E+00
5/21/2018	Dup	-	-	-	47	-	9.3	-	1.2 U	-	12 U	-	1.2 U	-	1.2 U	-	4.9 U	-	1.2 U	-
7/26/2018		30783	30783	410	200	2.11E-03	43	3.59E-04	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.1 U	0.00E+00	1.3 U	0.00E+00
Pulse -off period	July 26, 2018 to September 17, 2018																			
9/17/2018		30791	30791	360	220	2.04E-03	47	3.45E-04	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.1 U	0.00E+00	1.3 U	0.00E+00
11/19/2018		32280	32280	410	41	4.32E-04	8.7	7.27E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.0 U	0.00E+00	1.3 U	0.00E+00
Pulse -off period	November 19, 2018 to January 21, 2019																			
1/21/2019		32284	32284	280	23	1.66E-04	4.6	2.62E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00
3/21/2019		33265	33265	300	20	1.54E-04	4.8	2.93E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.4 U	0.00E+00	1.3 U	0.00E+00
Pulse -off period	March 21, 2019 to May 24, 2019																			
5/24/2019		33269	33269	260	27	1.80E-04	6.2	3.28E-05	1.4 U	0.00E+00	14 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.8 U	0.00E+00	1.4 U	0.00E+00
7/29/2019		34775	34775	200	24	1.23E-04	4.3	1.75E-05	1.4 U	0.00E+00	14 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.8 U	0.00E+00	1.4 U	0.00E+00
Pulse -off period	July 29, 2019 to September 27, 2019																			
9/27/2019		34779	34779	100	42	1.08E-04	7.3	1.49E-05	1.4 U	0.00E+00	14 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.7 U	0.00E+00	1.4 U	0.00E+00
12/9/2019		36495	36495	180	8.1	3.75E-05	1.6	5.87E-06	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	5.0 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period	December 9, 2019 to January 21, 2020																			
1/21/2020		36523	36523	260	6.5	4.35E-05	1.4 U	0.00E+00	1.4 U	0.00E+00	14 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.6 U	0.00E+00	14	4.41E-05
3/20/2020		37827	37827	100	6.4	1.65E-05	1.4 U	0.00E+00	1.4 U	0.00E+00	14 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.8 U	0.00E+00	14 U	0.00E+00
Pulse -off period	March 20, 2020 to May 21, 2020																			
5/21/2020		37827	37827	320	8.7	7.16E-05	1.8	1.17E-05	1.2 U	0.00E+00	12 U	0.00E+								

Table 4.4
Cell 4 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 4 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 4 Run Time (hr)	SVE Flow Rate (scfm)	Toluene		Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
Pulse-off period		November 28, 2016 to January 24, 2017																
1/24/2017		24166	24166	220	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	2.16E-04	1129.51
1/24/2017	Dup	24166	24166	220	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	2.36E-04	-
3/23/2017		25427	25427	190	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	3.53E-04	1129.95
Pulse-off period		March 23, 2017 to May 15, 2017																
5/15/2017		25452	25452	180	2.1	5.40E-06	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	2.21E-04	1129.96
7/20/2017		26992	26992	410	2.2 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	22 U	0.00E+00	8.6 U	0.00E+00	2.76E-03	1134.20
Pulse-off period		July 20, 2017 to September 14, 2017																
9/14/2017		27001	27001	420	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	10 U	0.00E+00	4.1 U	0.00E+00	4.10E-03	1134.24
9/14/2017	Dup	-	-	-	1.0 U	-	1.0 U	-	1.0 U	-	1.0 U	-	11 U	-	4.5 U	-	-	-
11/17/2017		28486	28486	480	1.6	1.10E-05	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	1.86E-03	1137.00
Pulse-off period		November 17, 2017 to January 22, 2018																
1/22/2018		28489	28489	460	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.9 U	0.00E+00	1.27E-03	1137.01
3/23/2018		29726	29726	440	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.0 U	0.00E+00	1.06E-03	1138.32
Pulse-off period		March 23, 2018 to May 21, 2018																
5/21/2018		29731	29731	410	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.2 U	0.00E+00	9.15E-04	1138.32
5/21/2018	Dup	-	-	-	1.2	-	1.2 U	-	1.2 U	-	1.2 U	-	12 U	-	4.9 U	-	-	-
7/26/2018		30783	30783	410	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.1 U	0.00E+00	3.02E-03	1141.50
Pulse-off period		July 26, 2018 to September 17, 2018																
9/17/2018		30791	30791	360	1.4	7.20E-06	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.1 U	0.00E+00	3.16E-03	1141.53
11/19/2018		32280	32280	410	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.0 U	0.00E+00	7.55E-04	1142.65
Pulse-off period		November 19, 2018 to January 21, 2019																
1/21/2019		32284	32284	280	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	2.84E-04	1142.65
3/21/2019		33265	33265	300	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.4 U	0.00E+00	4.17E-04	1143.06
Pulse-off period		March 21, 2019 to May 24, 2019																
5/24/2019		33269	33269	260	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	14 U	0.00E+00	5.8 U	0.00E+00	4.24E-04	1143.06
7/29/2019		34775	34775	200	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	46	8.28E-05	5.8 U	0.00E+00	2.88E-04	1143.50
Pulse-off period		July 29, 2019 to September 27, 2019																
9/27/2019		34779	34779	100	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	14 U	0.00E+00	5.7 U	0.00E+00	1.64E-04	1143.50
12/9/2019		36495	36495	180	1.2 U	0.00E+00	1.2 U	0.00E+00	2.8	8.30E-06	1.2 U	0.00E+00	12 U	0.00E+00	5.0 U	0.00E+00	8.63E-05	1143.65
Pulse-off period		December 9, 2019 to January 21, 2020																
1/21/2020		36523	36523	260	50	1.86E-04	9.2	3.94E-05	20	8.56E-05	7.4	3.17E-05	15	3.51E-05	5.6 U	0.00E+00	5.09E-04	1143.66
3/20/2020		37827	37827	100	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	14 U	0.00E+00	5.8 U	0.00E+00	6.61E-05	1143.75
Pulse-off period		March 20, 2020 to May 21, 2020																
5/21/2020		37827	37827	320	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	2.08E-04	1143.75

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library

SCFM standard cubic feet per minute

J Indicates estimated value.

B The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

*A sample could not be collected in September 2016 due to insufficient vacuum in the summa can. The sample results from July 22, 2016 are shown (*in italics*) for September 20, 2016 and are used in calculations.

Table 4.5
Cell 5 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
3/11/2011		218	218	360	28000	2.08E-01	100 U	0.00E+00	2400	1.33E-02	100 U	0.00E+00	740	4.00E-03	10000	5.41E-02	100 U	0.00E+00	5900	5.46E-02
3/18/2011		362	362	360	13000	9.68E-02	52 U	0.00E+00	1100	6.08E-03	52 U	0.00E+00	280	1.52E-03	4800	2.60E-02	52 U	0.00E+00	6800	6.29E-02
3/25/2011		459	459	360	8900	6.63E-02	30 U	0.00E+00	650	3.59E-03	30 U	0.00E+00	200	1.08E-03	2600	1.41E-02	30 U	0.00E+00	5400	5.00E-02
3/30/2011		553	553	360	4600	3.43E-02	13 U	0.00E+00	310	1.71E-03	13 U	0.00E+00	100	5.41E-04	1300	7.03E-03	13 U	0.00E+00	4000	3.70E-02
4/8/2011		759	759	360	4600	3.43E-02	20 U	0.00E+00	330	1.82E-03	20 U	0.00E+00	95	5.14E-04	1100	5.95E-03	20 U	0.00E+00	5700	5.28E-02
4/15/2011		920	920	360	4600	3.43E-02	20 U	0.00E+00	370	2.04E-03	20 U	0.00E+00	69	3.73E-04	980	5.30E-03	20 U	0.00E+00	4600	4.26E-02
5/19/2011		1681	1681	330	2800	1.91E-02	12 U	0.00E+00	250	1.27E-03	12 U	0.00E+00	34	1.69E-04	730	3.62E-03	12 U	0.00E+00	7800	6.62E-02
6/16/2011		2187	2187	300	1800	1.12E-02	7.8 U	0.00E+00	170	7.82E-04	7.8 U	0.00E+00	23 J	1.04E-04	520	2.34E-03	7.8 U	0.00E+00	2400	1.85E-02
7/15/2011		2745	2745	220	2400	1.09E-02	7.6 U	0.00E+00	180	6.08E-04	7.6 U	0.00E+00	27	8.93E-05	840	2.78E-03	7.6 U	0.00E+00	2700	1.53E-02
8/22/2011		3129	3129	260	1700	9.14E-03	5.0 U	0.00E+00	150	5.98E-04	5.0 U	0.00E+00	21	8.21E-05	690	2.70E-03	5.0 U	0.00E+00	2000	1.34E-02
9/15/2011		3626	3626	220	1400	6.37E-03	4.5 U	0.00E+00	69	2.33E-04	4.5 U	0.00E+00	22	7.27E-05	380	1.26E-03	4.5 U	0.00E+00	1100	6.22E-03
10/14/2011		4222	4222	220	980	4.46E-03	3.9 U	0.00E+00	57	1.92E-04	3.9 U	0.00E+00	19	6.28E-05	310	1.03E-03	3.9 U	0.00E+00	760	4.30E-03
11/21/2011	Dup	5015	5015	200	690	2.85E-03	3.2 U	0.00E+00	55	1.69E-04	3.2 U	0.00E+00	45	1.35E-04	290	8.72E-04	3.2 U	0.00E+00	380	1.95E-03
11/21/2011		5015	5015	200	700	2.90E-03	3.1 U	0.00E+00	57	1.75E-04	3.1 U	0.00E+00	59	1.77E-04	300	9.02E-04	3.1 U	0.00E+00	390	2.01E-03
12/14/2011		5339	5339	200	890	3.68E-03	3.2 U	0.00E+00	62	1.90E-04	3.2 U	0.00E+00	64	1.92E-04	270	8.12E-04	3.2 U	0.00E+00	350	1.80E-03
1/19/2012		5958	5958	0	540	0.00E+00	2.8 U	0.00E+00	17	0.00E+00	2.8 U	0.00E+00	9.9	0.00E+00	69	0.00E+00	2.8 U	0.00E+00	78	0.00E+00
2/15/2012		6364	6364	0	990	0.00E+00	4.1 U	0.00E+00	24	0.00E+00	4.1 U	0.00E+00	100	0.00E+00	230	0.00E+00	4.1 U	0.00E+00	150	0.00E+00
3/15/2012		6942	6942	0	1100	0.00E+00	3.8 U	0.00E+00	43	0.00E+00	3.8 U	0.00E+00	20	0.00E+00	220	0.00E+00	3.8 U	0.00E+00	140	0.00E+00
4/19/2012		7625	7625	80	650	1.08E-03	2.4 U	0.00E+00	28	3.44E-05	2.4 U	0.00E+00	8.1	9.74E-06	130	1.56E-04	2.4 U	0.00E+00	100	2.06E-04
5/16/2012		8138	8138	200	650	2.69E-03	2.0 U	0.00E+00	28	8.59E-05	2.0 U	0.00E+00	8.9	2.68E-05	110	3.31E-04	2.0 U	0.00E+00	130	6.68E-04
Pulse-off period June 1, 2012 to August 14, 2012																				
8/14/2012		8541	8541	360	710	3.23E-03	2.5 U	0.00E+00	44	1.49E-04	2.5 U	0.00E+00	11	3.64E-05	110	3.64E-04	2.5 U	0.00E+00	540	3.05E-03
9/17/2012		9029	9029	360	2000	8.27E-03	8.0 U	0.00E+00	29	8.90E-05	8.0 U	0.00E+00	19	5.71E-05	42	1.26E-04	8.0 U	0.00E+00	190	9.77E-04
Pulse-off period September 17, 2012 to November 15, 2012																				
11/15/2012		9033	9033	220	1200	5.46E-03	4.4 U	0.00E+00	19	6.41E-05	4.4 U	0.00E+00	33	1.09E-04	8	2.65E-05	4.4 U	0.00E+00	55	3.11E-04
12/14/2012		9436	9436	200	1200	4.96E-03	4.8 U	0.00E+00	35	1.07E-04	4.8 U	0.00E+00	16	4.81E-05	37	1.11E-04	4.8 U	0.00E+00	61	3.14E-04
Pulse-off period December 14, 2012 to February 26, 2013																				
2/26/2013		9511	9511	440	70	6.37E-04	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00
4/11/2013		9952	9952	420	1600	1.39E-02	8	6.95E-05	160	1.03E-03	5.1 U	0.00E+00	20	1.26E-04	88	5.56E-04	5.1 U	0.00E+00	320	3.46E-03
Pulse-off period April 11, 2013 to May 10, 2013																				
5/10/2013		9958	9958	420	1200	1.04E-02	5.4 U	0.00E+00	86	5.54E-04	5.4 U	0.00E+00	12	7.57E-05	45	2.84E-04	5.4 U	0.00E		

Table 4.5
Cell 5 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT																				
Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
3/11/2011	Dup	218	218	360	1400	1.03E-02	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	420 U	0.00E+00	100 U	0.00E+00	350	1.80E-03		
3/18/2011		362	362	360	1100	8.07E-03	52 U	0.00E+00	52 U	0.00E+00	52 U	0.00E+00	210 U	0.00E+00	52 U	0.00E+00	120 JB	6.17E-04		
3/25/2011		459	459	360	760	5.57E-03	30 U	0.00E+00	33	1.56E-04	30 U	0.00E+00	30 U	0.00E+00	120 U	0.00E+00	30 U	0.00E+00	73	3.75E-04
3/30/2011		553	553	360	420	3.08E-03	13 U	0.00E+00	13 U	0.00E+00	13 U	0.00E+00	51 U	0.00E+00	13 U	0.00E+00	37	1.90E-04		
4/8/2011		759	759	360	560	4.11E-03	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	81 U	0.00E+00	20 U	0.00E+00	57	2.93E-04		
4/15/2011		920	920	360	560	4.11E-03	20 U	0.00E+00	20 U	0.00E+00	20 U	0.00E+00	81 U	0.00E+00	20 U	0.00E+00	85	4.37E-04		
5/19/2011		1681	1681	330	360	2.42E-03	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	47 U	0.00E+00	12 U	0.00E+00	120	5.66E-04		
6/16/2011		2187	2187	300	180	1.10E-03	7.8 U	0.00E+00	7.8 U	0.00E+00	7.8 U	0.00E+00	31 U	0.00E+00	12	4.36E-05	7.8 U	0.00E+00		
7/15/2011		2745	2745	220	280	1.25E-03	7.6 U	0.00E+00	20	5.79E-05	7.6 U	0.00E+00	7.6 U	0.00E+00	30 U	0.00E+00	7.6 U	0.00E+00	49	1.54E-04
8/22/2011		3129	3129	260	160	8.47E-04	5.0 U	0.00E+00	5.0 U	0.00E+00	5.0 U	0.00E+00	20 U	0.00E+00	7.6	2.39E-05	5.0 U	0.00E+00		
9/15/2011		3626	3626	220	83	3.72E-04	4.5 U	0.00E+00	4.5 U	0.00E+00	4.5 U	0.00E+00	18 U	0.00E+00	5	1.33E-05	4.5 U	0.00E+00		
10/14/2011		4222	4222	220	50	2.24E-04	3.9 U	0.00E+00	3.9 U	0.00E+00	3.9 U	0.00E+00	16 U	0.00E+00	3.9 U	0.00E+00	3.9 U	0.00E+00		
11/21/2011		5015	5015	200	27	1.10E-04	3.2 U	0.00E+00	32 U	0.00E+00	3.2 U	0.00E+00	13 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00		
11/21/2011		5015	5015	200	28	1.14E-04	3.1 U	0.00E+00	31 U	0.00E+00	3.1 U	0.00E+00	12 U	0.00E+00	3.1 U	0.00E+00	3.1 U	0.00E+00		
12/14/2011		5339	5339	200	24	9.78E-05	3.2 U	0.00E+00	32 U	0.00E+00	3.2 U	0.00E+00	13 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00		
1/19/2012		5958	5958	0	10	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00	11 U	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00		
2/15/2012		6364	6364	0	19	0.00E+00	4.1 U	0.00E+00	4.1 U	0.00E+00	4.1 U	0.00E+00	16 U	0.00E+00	4.1 U	0.00E+00	4.1 U	0.00E+00		
3/15/2012		6942	6942	0	25	0.00E+00	3.8 U	0.00E+00	3.8 U	0.00E+00	3.8 U	0.00E+00	15 U	0.00E+00	3.8 U	0.00E+00	3.8 U	0.00E+00		
4/19/2012		7625	7625	80	19	3.10E-05	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	9.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00
5/16/2012		8138	8138	200	24	9.78E-05	2.0 U	0.00E+00	2.0 U	0.00E+00	2.0 U	0.00E+00	2.0 U	0.00E+00	7.9 U	0.00E+00	2.0 U	0.00E+00	2.0 U	0.00E+00
Pulse -off period June 1, 2012 to August 14, 2012																				
8/14/2012		8541	8541	360	64	2.87E-04	2.5 U	0.00E+00	25 U	0.00E+00	2.5 U	0.00E+00	9.9 U	0.00E+00	2.5 U	0.00E+00	2.5 U	0.00E+00		
9/17/2012		9029	9029	360	71	2.89E-04	8.0 U	0.00E+00	80 U	0.00E+00	8.0 U	0.00E+00	32 U	0.00E+00	8.0 U	0.00E+00	8.0 U	0.00E+00		
Pulse -off period September 17, 2012 to November 15, 2012																				
11/15/2012		9033	9033	220	39	1.75E-04	4.4 U	0.00E+00	44 U	0.00E+00	4.4 U	0.00E+00	18 U	0.00E+00	4.4 U	0.00E+00	4.4 U	0.00E+00		
12/14/2012		9436	9436	200	60	2.44E-04	4.8 U	0.00E+00	48 U	0.00E+00	4.8 U	0.00E+00	19 U	0.00E+00	4.8 U	0.00E+00	4.8 U	0.00E+00		
Pulse -off period December 14, 2012 to February 26, 2013																				
2/26/2013		9511	9511	440	6.8 U	0.00E+00	6.8 U	0.00E+00	68 U	0.00E+00	6.8 U	0.00E+00	27 U	0.00E+00	12	6.39E-05	6.8 U	0.00E+00		
4/11/2013		9952	9952	420	110	9.41E-04	5.1 U	0.00E+00	51 U	0.00E+00	5.1 U	0.00E+00	20 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00		
Pulse -off period April 11, 2013 to May 10, 2013																				
5/10/2013		9958	9958	420	79	6.76E-04	5.4 U	0.00E+00	54 U	0.00E+00	5.4 U	0.00E+00	22 U	0.00E+00	5.4 U	0.00E+00	5.4 U	0.00E+00		
7/15/2013		10984	10984	360	100	7.33E-04	4.7 U	0.00E+00	47 U											

Table 4.5
Cell 5 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
3/11/2011	Dup	218	218	360	100 U	0.00E+00	100 U	0.00E+00	100 U	0.00E+00	420 U	0.00E+00	420 U	0.00E+00	3.47E-01	75.54
3/18/2011		362	362	360	52 U	0.00E+00	59	3.50E-04	110	6.52E-04	210 U	0.00E+00	210 U	0.00E+00	2.03E-01	104.77
3/25/2011		459	459	360	30 U	0.00E+00	30 U	0.00E+00	47	2.79E-04	130	4.21E-04	120 U	0.00E+00	1.42E-01	118.53
3/30/2011		553	553	360	16	9.48E-05	23	1.36E-04	46	2.73E-04	99	3.21E-04	51 U	0.00E+00	8.47E-02	126.48
4/8/2011		759	759	360	38	2.25E-04	84	4.98E-04	120	7.11E-04	81 U	0.00E+00	81 U	0.00E+00	1.01E-01	147.32
4/15/2011		920	920	360	45	2.67E-04	160	9.48E-04	140	8.30E-04	180 J,B	5.83E-04	81 U	0.00E+00	9.17E-02	162.08
5/19/2011		1681	1681	330	12 U	0.00E+00	12 U	0.00E+00	12 U	0.00E+00	360	1.07E-03	47 U	0.00E+00	9.44E-02	233.92
6/16/2011		2187	2187	300	15	7.41E-05	54	2.67E-04	64	3.16E-04	69 J,B	1.86E-04	31 U	0.00E+00	3.49E-02	251.58
7/15/2011		2745	2745	220	13	4.71E-05	120	4.35E-04	140	5.07E-04	94	1.86E-04	30 U	0.00E+00	3.23E-02	269.61
8/22/2011		3129	3129	260	5.9	2.52E-05	19	8.13E-05	29	1.24E-04	62 J,B	1.45E-04	20 U	0.00E+00	2.71E-02	280.03
9/15/2011		3626	3626	220	4.5 U	0.00E+00	14	5.07E-05	17	6.16E-05	49	9.71E-05	18 U	0.00E+00	1.47E-02	287.36
10/14/2011		4222	4222	220	3.9 U	0.00E+00	7.1	2.57E-05	10	3.62E-05	16 U	0.00E+00	16 U	0.00E+00	1.03E-02	293.51
11/21/2011		5015	5015	200	3.2 U	0.00E+00	4.5	1.48E-05	6.1	2.01E-05	36	6.48E-05	13 U	0.00E+00	6.19E-03	298.43
11/21/2011		5015	5015	200	3.1 U	0.00E+00	4.2	1.38E-05	6.2	2.04E-05	31 U	0.00E+00	12 U	0.00E+00	6.30E-03	298.51
12/14/2011		5339	5339	200	3.2 U	0.00E+00	3.2 U	0.00E+00	3.2 U	0.00E+00	32 UJ	0.00E+00	13 U	0.00E+00	6.77E-03	300.62
1/19/2012		5958	5958	0	2.8 U	0.00E+00	2.8 U	0.00E+00	2.8 U	0.00E+00	11 U	0.00E+00	11 U	0.00E+00	0.00E+00	300.62
2/15/2012		6364	6364	0	4.1 U	0.00E+00	4.1 U	0.00E+00	4.1 U	0.00E+00	16 U	0.00E+00	16 U	0.00E+00	0.00E+00	300.62
3/15/2012		6942	6942	0	3.8 U	0.00E+00	3.8 U	0.00E+00	3.8 U	0.00E+00	15 U	0.00E+00	15 U	0.00E+00	0.00E+00	300.62
4/19/2012		7625	7625	80	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	9.4 U	0.00E+00	9.4 U	0.00E+00	1.51E-03	301.65
5/16/2012		8138	8138	200	2.0 U	0.00E+00	2.0 U	0.00E+00	2.0 U	0.00E+00	7.9 U	0.00E+00	7.9 U	0.00E+00	3.90E-03	303.65
Pulse -off period June 1, 2012 to August 14, 2012																
8/14/2012		8541	8541	360	2.5 U	0.00E+00	2.5 U	0.00E+00	2.5 U	0.00E+00	25 U	0.00E+00	9.9 U	0.00E+00	7.12E-03	306.52
9/17/2012		9029	9029	360	8.0 U	0.00E+00	8.0 U	0.00E+00	8.0 U	0.00E+00	80 U	0.00E+00	32 U	0.00E+00	9.81E-03	311.31
Pulse -off period September 17, 2012 to November 15, 2012																
11/15/2012		9033	9033	220	4.4 U	0.00E+00	4.4 U	0.00E+00	4.4 U	0.00E+00	44 U	0.00E+00	18 U	0.00E+00	6.15E-03	311.34
12/14/2012		9436	9436	200	4.8 U	0.00E+00	4.8 U	0.00E+00	4.8 U	0.00E+00	48 U	0.00E+00	19 U	0.00E+00	5.79E-03	313.67
Pulse -off period December 14, 2012 to February 26, 2013																
2/26/2013		9511	9511	440	6.8 U	0.00E+00	6.8 U	0.00E+00	6.8 U	0.00E+00	68 U	0.00E+00	27 U	0.00E+00	7.01E-04	313.72
4/11/2013		9952	9952	420	5.1 U	0.00E+00	5.1 U	0.00E+00	5.1 U	0.00E+00	51 U	0.00E+00	20 U	0.00E+00	2.01E-02	322.58
Pulse -off period April 11, 2013 to May 10, 2013																
5/10/2013		9958	9958	420	5.4 U	0.00E+00	5.4 U	0.00E+00	5.4 U	0.00E+00	54 U	0.00E+00	22 U	0.00E+00	1.44E-02	322.66
7/15/2013		10984	10984	360	4.7 U	0.00E+00	4.7 U	0.00E+00	4.7 U	0.00E+00	47 U	0.00E+00	19 U	0.00E+00	1.65E-02	339.59
Pulse -off period July 15, 2013 to September 9, 2013																
9/9/2013		10991	10991	380	4 U	0.00E+00	4 U	0.00E+00	4 U	0.00E+00	40 U	0.00E+00	40 U	0.00E+00	8.81E-03	339.65
11/18/2013		12069	12069	380	7.6 U	0.00E+00	7.6 U	0.00E+00	7.6 U	0.00E+00	76 U	0.00E+00	31 U	0.00E+00	1.58E-02	356.69

Table 4.5
Cell 5 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period November 18, 2013 to January 15, 2014																				
1/15/2014		12074	12074	380	950	7.47E-03	3.5 U	0.00E+00	24	1.40E-04	3.5 U	0.00E+00	10	5.71E-05	23	1.31E-04	3.5 U	0.00E+00	82	8.01E-04
3/14/2014		13057	13057	380	1400	1.10E-02	7.8 U	0.00E+00	32	1.87E-04	7.8 U	0.00E+00	24	1.37E-04	88	5.03E-04	7.8 U	0.00E+00	30	2.93E-04
Pulse -off period March 14, 2014 to May 15, 2014																				
5/1/2014		13063	13063	300	1000	6.20E-03	3.0 U	0.00E+00	20	9.21E-05	3.0 U	0.00E+00	14	6.31E-05	65	2.93E-04	3.0 U	0.00E+00	71	5.48E-04
7/23/2014		14714	14714	100	670	1.39E-03	2.2 U	0.00E+00	19	2.92E-05	2.2 U	0.00E+00	9.6	1.44E-05	12	1.80E-05	2.2 U	0.00E+00	47	1.21E-04
Pulse -off period July 23, 2014 to September 16, 2014																				
9/16/2014		14721	14715	120	470	1.17E-03	2.3 U	0.00E+00	10	1.84E-05	2.3 U	0.00E+00	4.8	8.66E-06	6.9	1.24E-05	2.3 U	0.00E+00	79	2.44E-04
11/14/2014		16095	16095	290	660	3.96E-03	2.4 U	0.00E+00	15	6.67E-05	2.4 U	0.00E+00	8.5	3.70E-05	19	8.28E-05	2.4 U	0.00E+00	32	2.39E-04
Pulse -off period November 14, 2014 to January 9, 2015																				
1/9/2015		16102	16102	180	360	1.34E-03	1.1 U	0.00E+00	4.6	1.27E-05	1.1 U	0.00E+00	4.0	1.08E-05	7.2	1.95E-05	1.1 U	0.00E+00	12	5.55E-05
3/13/2015		17322	17322	260	660	3.55E-03	2.4 U	0.00E+00	22	8.78E-05	2.4 U	0.00E+00	8.0	3.13E-05	16	6.25E-05	2.4 U	0.00E+00	29	1.94E-04
Pulse -off period March 13, 2015 to May 15, 2015																				
5/15/2015		17329	17329	260	360	1.94E-03	1.1 U	0.00E+00	7.3	2.91E-05	1.1 U	0.00E+00	2.5	9.77E-06	5.9	2.31E-05	1.1 U	0.00E+00	31	2.07E-04
7/16/2015		18578	18578	180	260	9.68E-04	1.2 U	0.00E+00	22	6.08E-05	1.2 U	0.00E+00	3.5	9.47E-06	12	3.25E-05	1.2 U	0.00E+00	54	2.50E-04
Pulse -off period July 16, 2015 to September 22, 2015																				
9/22/2015		18580	18580	160	150	4.96E-04	1.2 U	0.00E+00	4.2	1.03E-05	1.2 U	0.00E+00	1.2	2.89E-06	2.4	5.77E-06	1.2 U	0.00E+00	47	1.93E-04
11/20/2015		19973	19973	230	320	1.52E-03	1.2 U	0.00E+00	26	9.17E-05	1.2 U	0.00E+00	5.5	1.90E-05	13	4.49E-05	1.2 U	0.00E+00	50	2.96E-04
Pulse -off period November 20, 2015 to January 19, 2016																				
1/19/2016		19982	19982	180	78	2.90E-04	1.1 U	0.00E+00	1.9	5.25E-06	1.1 U	0.00E+00	1.1 U	0.00E+00	1.3	3.52E-06	1.1 U	0.00E+00	10	4.63E-05
3/18/2016		21229	21229	260	340	1.83E-03	1.1 U	0.00E+00	21	8.38E-05	1.1 U	0.00E+00	5.4	2.11E-05	11	4.30E-05	1.1 U	0.00E+00	30	2.01E-04
Pulse -off period March 18, 2016 to May 19, 2016																				
5/19/2016		21233	21233	140	100	2.90E-04	1.2 U	0.00E+00	2.9	6.23E-06	1.2 U	0.00E+00	1.4	2.95E-06	2.2	4.63E-06	1.2 U	0.00E+00	9.3	3.35E-05
7/22/2016		22751	22751	180	340	1.27E-03	1.0 U	0.00E+00	13	3.59E-05	1.0 U	0.00E+00	5.2	1.41E-05	8.5	2.30E-05	1.0 U	0.00E+00	40	1.85E-04
Pulse -off period July 22, 2016 to September 20, 2016																				
9/20/2016		22752	22752	180	160	5.96E-04	1.2 U	0.00E+00	3.4	9.39E-06	1.2 U	0.00E+00	1.8	4.87E-06	2.6	7.03E-06	1.2 U	0.00E+00	41	1.90E-04
11/28/2016		24305	24305	220	330	1.50E-03	1.2 U	0.00E+00	10	3.38E-05	1.2 U	0.00E+00	5.1	1.69E-05	8.3	2.74E-05	1.2 U	0.00E+00	13	7.35E-05
Pulse -off period November 28, 2016 to January 24, 2017																				
1/24/2017		24309	24309	190	52	2.04E-04	1.2 U	0.00E+00	1.4	4.08E-06	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
3/23/2017		25572	25572	90	440	8.19E-04	2.4 U	0.00E+00	8.6	1.19E-05	2.4 U	0.00E+00	3.7	5.00E-06	9	1.22E-05	2.4 U	0.00E+00	9	2.08E-05
Pulse -off period March 23, 2017 to May 15, 2017																				

Table 4.5
Cell 5 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT																				
Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period November 18, 2013 to January 15, 2014																				
1/15/2014		12074	12074	380	37	2.86E-04	3.5 U	0.00E+00	35 U	0.00E+00	3.5 U	0.00E+00	3.5 U	0.00E+00	14 U	0.00E+00	3.5 U	0.00E+00	3.5 U	0.00E+00
3/14/2014		13057	13057	380	41	3.17E-04	7.8 U	0.00E+00	78 U	0.00E+00	7.8 U	0.00E+00	7.8 U	0.00E+00	31 U	0.00E+00	7.8 U	0.00E+00	7.8 U	0.00E+00
Pulse -off period March 14, 2014 to May 15, 2014																				
5/15/2014		13063	13063	300	33	2.02E-04	3.0 U	0.00E+00	30 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	12 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00
7/23/2014		14714	14714	100	14	2.85E-05	2.2 U	0.00E+00	22 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	9.0 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00
Pulse -off period July 23, 2014 to September 16, 2014																				
9/16/2014		14721	14715	120	22	5.38E-05	2.3 U	0.00E+00	23 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	9.4 U	0.00E+00	6.4	9.30E-06	2.3 U	0.00E+00
11/14/2014		16095	16095	290	11	6.50E-05	2.4 U	0.00E+00	24 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	9.7 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00
Pulse -off period November 14, 2014 to January 9, 2015																				
1/9/2015		16102	16102	180	4.9	1.80E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.6 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
3/13/2015		17322	17322	260	12	6.36E-05	2.4 U	0.00E+00	24 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	9.5 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00
Pulse -off period March 13, 2015 to May 15, 2015																				
5/15/2015		17329	17329	260	8.2	4.34E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.5 U	0.00E+00	1.1 U	0.00E+00	1.4	5.20E-06
7/16/2015		18578	18578	180	14	5.13E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period July 16, 2015 to September 22, 2015																				
9/22/2015		18580	18580	160	11	3.59E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
11/20/2015		19973	19973	230	11	5.15E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period November 20, 2015 to January 19, 2016																				
1/19/2016		19982	19982	180	2	7.33E-06	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
3/18/2016		21229	21229	260	8.5	4.50E-05	1.1 U	0.00E+00	11 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	4.3 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00
Pulse -off period March 18, 2016 to May 19, 2016																				
5/19/2016		21233	21233	140	2.1	5.99E-06	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
7/22/2016		22751	22751	180	9.3	3.41E-05	1.0 U	0.00E+00	10 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	4.1 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00
Pulse -off period July 22, 2016 to September 20, 2016																				
9/20/2016		22752	22752	180	10	3.67E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
11/28/2016		24305	24305	220	4.7	2.11E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period November 28, 2016 to January 24, 2017																				
1/24/2017		24309	24309	190	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
3/23/2017		25572	25572	90	4.6	8.43E-06	2.4 U	0.00E+00	24 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	9.5 U	0.00E				

Table 4.5
Cell 5 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
Pulse-off period November 18, 2013 to January 15, 2014																
1/15/2014		12074	12074	380	3.5 U	0.00E+00	3.5 U	0.00E+00	3.5 U	0.00E+00	35 U	0.00E+00	14 U	0.00E+00	8.88E-03	356.73
3/14/2014		13057	13057	380	7.8 U	0.00E+00	7.8 U	0.00E+00	7.8 U	0.00E+00	78 U	0.00E+00	31 U	0.00E+00	1.24E-02	368.96
Pulse-off period March 14, 2014 to May 15, 2014																
5/15/2014		13063	13063	300	3.0 U	0.00E+00	3.0 U	0.00E+00	3.0 U	0.00E+00	30 U	0.00E+00	12 U	0.00E+00	7.40E-03	369.01
7/23/2014		14714	14714	100	2.2 U	0.00E+00	2.2 U	0.00E+00	2.2 U	0.00E+00	22 U	0.00E+00	9.0 U	0.00E+00	1.60E-03	371.61
Pulse-off period July 23, 2014 to September 16, 2014																
9/16/2014		14721	14715	120	2.3 U	0.00E+00	2.3 U	0.00E+00	2.3 U	0.00E+00	32	3.46E-05	9.4 U	0.00E+00	1.55E-03	371.61
11/14/2014		16095	16095	290	2.4 U	0.00E+00	2.4 U	0.00E+00	2.8	1.34E-05	24 U	0.00E+00	9.7 U	0.00E+00	4.46E-03	377.77
Pulse-off period November 14, 2014 to January 9, 2015																
1/9/2015		16102	16102	180	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.6 U	0.00E+00	1.46E-03	377.78
3/13/2015		17322	17322	260	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	24 U	0.00E+00	9.5 U	0.00E+00	3.99E-03	382.64
Pulse-off period March 13, 2015 to May 15, 2015																
5/15/2015		17329	17329	260	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.5 U	0.00E+00	2.25E-03	382.66
7/16/2015		18578	18578	180	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	1.37E-03	384.37
Pulse-off period July 16, 2015 to September 22, 2015																
9/22/2015		18580	18580	160	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.9 U	0.00E+00	7.45E-04	384.37
11/20/2015		19973	19973	230	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	2.03E-03	387.19
Pulse-off period November 20, 2015 to January 19, 2016																
1/19/2016		19982	19982	180	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	3.53E-04	387.20
3/18/2016		21229	21229	260	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.3 U	0.00E+00	2.22E-03	389.97
Pulse-off period March 18, 2016 to May 19, 2016																
5/19/2016		21233	21233	140	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	3.43E-04	389.97
7/22/2016		22751	22751	180	1.0 U	0.00E+00	1.0 U	0.00E+00	1.0 U	0.00E+00	10 U	0.00E+00	4.0 J	0.00E+00	1.56E-03	392.33
Pulse-off period July 22, 2016 to September 20, 2016																
9/20/2016		22752	22752	180	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	8.43E-04	392.33
11/28/2016		24305	24305	220	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	1.67E-03	394.93
Pulse-off period November 28, 2016 to January 24, 2017																
1/24/2017		24309	24309	190	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.9 U	0.00E+00	2.08E-04	394.94
3/23/2017		25572	25572	90	2.4 U	0.00E+00	2.4 U	0.00E+00	2.4 U	0.00E+00	24 U	0.00E+00	9.5 U	0.00E+00	8.77E-04	396.04
Pulse-off period March 23, 2017 to May 15, 2017																
5/15/2017		25597	25597	90	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	3.80E-04	396.05
7/20/2017		27137	27137	350	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.8 U	0.00E+00	2.07E-03	399.24
Pulse-off period July 20, 2017 to September 14, 2017																
9/14/2017		27146	27146	350	1.1 U	0.00E+00	1.1	6.34E-06	1.1 U	0.00E+00	12	3.78E-05	4.3 U	0.00E+00	2.28E-03	402.77
11/17/2017		28631	28631	480	1.1 U	0.00E+00	1.1 U	0.00E+00	1.1 U	0.00E+00	11 U	0.00E+00	4.4 U	0.00E+00	2.78E-03	406.93

Table 4.5
Cell 5 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	1,1,1-Trichloroethane		1,1,2-Trichloroethane		1,1-Dichloroethane		1,2-Dichloroethane		1,1-Dichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Tetrachloroethene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period November 17, 2017 to January 22, 2018																				
1/22/2018		28634	28634	440	160	1.46E-03	1.2 U	0.00E+00	3.3	2.23E-05	1.2 U	0.00E+00	1.4	9.26E-06	2.4	1.59E-05	1.2 U	0.00E+00	4.2	4.75E-05
3/23/2018		29870	29870	460	170	1.62E-03	1.2 U	0.00E+00	7.9	5.58E-05	1.2 U	0.00E+00	2.1	1.45E-05	4.2	2.90E-05	1.2 U	0.00E+00	9.0	1.06E-04
Pulse -off period March 23, 2018 to May 21, 2018																				
5/2/2018		29870	29870	420	120	1.04E-03	1.2 U	0.00E+00	3.7	2.38E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	2.6	1.64E-05	1.2 U	0.00E+00	7.2	7.77E-05
7/26/2018		31423	31423	420	150	1.30E-03	1.2 U	0.00E+00	10	6.44E-05	1.2 U	0.00E+00	1.8	1.14E-05	3	1.89E-05	1.2 U	0.00E+00	34	3.67E-04
Pulse -off period July 26, 2018 to September 17, 2018																				
9/17/2018		31431	31431	420	140	1.22E-03	1.2 U	0.00E+00	4.6	2.96E-05	1.2 U	0.00E+00	1.2 U	0.00E+00	2.3	1.45E-05	1.2 U	0.00E+00	25	2.70E-04
11/19/2018		32920	32920	420	99	8.60E-04	1.3 U	0.00E+00	7.4	4.77E-05	1.3 U	0.00E+00	1.3 U	0.00E+00	3.7	2.34E-05	1.3 U	0.00E+00	12	1.30E-04
Pulse -off period November 19, 2018 to January 21, 2019																				
1/21/2019		32944	32944	320	53	3.51E-04	1.3 U	0.00E+00	1.7	8.35E-06	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	3.9	3.21E-05
3/21/2019		33985	33985	220	75	3.41E-04	1.6 U	0.00E+00	6.8	2.30E-05	1.6 U	0.00E+00	1.6 U	0.00E+00	2.2	7.28E-06	1.6 U	0.00E+00	6.6	3.73E-05
Pulse -off period March 21, 2019 to May 24, 2019																				
5/24/2019		33989	33989	250	86	4.45E-04	1.5 U	0.00E+00	3.4	1.30E-05	1.5 U	0.00E+00	1.5 U	0.00E+00	2.3	8.64E-06	1.7	6.39E-06	5.4	3.47E-05
7/29/2019		35359	35359	420	210	1.82E-03	1.4 U	0.00E+00	9.2	5.93E-05	1.4 U	0.00E+00	2.1	1.33E-05	5.7	3.60E-05	1.4 U	0.00E+00	16	1.73E-04
Pulse -off period July 29, 2019 to September 27, 2019																				
Blower was off-line during the fourth quarter 2019 for inspections and was replaced with a new blower in January 2020.																				
Pulse -off period December 9, 2019 to January 21, 2020																				
1/21/2020		35360	35360	260	25	1.34E-04	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	1.6	1.07E-05
3/20/2020		36661	36661	180	230	8.56E-04	1.3 U	0.00E+00	7.1	1.96E-05	1.3 U	0.00E+00	1.5	4.06E-06	2.1	5.68E-06	1.3 U	0.00E+00	12	5.55E-05
Pulse -off period March 20, 2020 to May 21, 2020																				
5/21/2020		36661	36661	180	130	4.84E-04	1.3 U	0.00E+00	2.1	5.80E-06	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	7	3.24E-05

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library of Medicine)

SCFM standard cubic feet per minute

J Indicates estimated value.

B The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.5
Cell 5 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT																				
Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	Trichloroethene		Vinyl chloride		Methylene Chloride		Carbon Tetrachloride		Chloroform		Chloroethane		Benzene		Toluene	
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)
Pulse -off period November 17, 2017 to January 22, 2018																				
1/22/2018		28634	28634	440	2.2	1.97E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
3/23/2018		29870	29870	460	2.7	2.53E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.6 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period March 23, 2018 to May 21, 2018																				
5/21/2018		29870	29870	420	2.4	2.05E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	5.0 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
7/26/2018		31423	31423	420	8.4	7.19E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.7 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00
Pulse -off period July 26, 2018 to September 17, 2018																				
9/17/2018		31431	31431	420	6.1	5.22E-05	1.2 U	0.00E+00	12 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	4.9 U	0.00E+00	1.2 U	0.00E+00	2.3	1.38E-05
11/19/2018		32920	32920	420	3.5	2.99E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
Pulse -off period November 19, 2018 to January 21, 2019																				
1/21/2019		32944	32944	320	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.4 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
3/21/2019		33985	33985	220	2.2	9.86E-06	1.6 U	0.00E+00	16 U	0.00E+00	1.6 U	0.00E+00	1.6 U	0.00E+00	6.4 U	0.00E+00	1.6 U	0.00E+00	1.6 U	0.00E+00
Pulse -off period March 21, 2019 to May 24, 2019																				
5/24/2019		33989	33989	250	1.5 U	0.00E+00	1.5 U	0.00E+00	15 U	0.00E+00	1.5 U	0.00E+00	1.5 U	0.00E+00	5.9 U	0.00E+00	1.5 U	0.00E+00	1.5 U	0.00E+00
7/29/2019		35359	35359	420	3.8	3.25E-05	1.4 U	0.00E+00	14 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.5 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00
Pulse -off period July 29, 2019 to September 27, 2019																				
Blower was off-line during the fourth quarter 2019 for inspections and maintenance.																				
Pulse -off period December 9, 2019 to January 21, 2020																				
1/21/2020		35360	35360	260	1.4 U	0.00E+00	1.4 U	0.00E+00	14 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	5.6 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00
3/20/2020		36661	36661	180	3.2	1.17E-05	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00
Pulse -off period March 20, 2020 to May 21, 2020																				
5/21/2020		36661	36661	180	2.7	9.90E-06	1.3 U	0.00E+00	13 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	5.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library of Medicine)

SCFM standard cubic feet per minute

J Indicates estimated value.

B The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.5
Cell 5 - Phase 2 SVE System Effluent Data
March 2011 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

CELL 5 SVE EFFLUENT

Date	Sample Type	SVE Run Time (hr)	Cell 5 Run Time (hr)	SVE Flow Rate (scfm)	Ethylbenzene		m&p-Xylenes		o-Xylenes		Acetone		Methyl Ethyl Ketone (MEK)		Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)
					Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)	Conc (ppbv)	Mass Removal Rate (lb/hr)		
Pulse-off period November 17, 2017 to January 22, 2018																
1/22/2018		28634	28634	440	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	29	1.15E-04	4.7 U	0.00E+00	1.69E-03	406.93
3/23/2018		29870	29870	460	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.6 U	0.00E+00	1.85E-03	409.22
Pulse-off period March 23, 2018 to May 21, 2018																
5/21/2018		29870	29870	420	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	5.0 U	0.00E+00	1.18E-03	409.22
7/26/2018		31423	31423	420	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	12 U	0.00E+00	4.7 U	0.00E+00	1.84E-03	412.07
Pulse-off period July 26, 2018 to September 17, 2018																
9/17/2018		31431	31431	420	1.2 U	0.00E+00	1.2 U	0.00E+00	1.2 U	0.00E+00	14	5.29E-05	4.9 U	0.00E+00	1.65E-03	412.08
11/19/2018		32920	32920	420	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.3 U	0.00E+00	1.09E-03	413.71
Pulse-off period November 19, 2018 to January 21, 2019																
1/21/2019		32944	32944	320	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.4 U	0.00E+00	3.91E-04	413.72
3/21/2019		33985	33985	220	1.6 U	0.00E+00	1.6 U	0.00E+00	1.6 U	0.00E+00	16 U	0.00E+00	6.4 U	0.00E+00	4.19E-04	414.15
Pulse-off period March 21, 2019 to May 24, 2019																
5/24/2019		33989	33989	250	1.5 U	0.00E+00	1.5 U	0.00E+00	1.5 U	0.00E+00	15 U	0.00E+00	5.9 U	0.00E+00	5.07E-04	414.15
7/29/2019		35359	35359	420	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	14 U	0.00E+00	5.5 U	0.00E+00	2.14E-03	417.08
Pulse-off period July 29, 2019 to September 27, 2019																
Blower was off-line during the fourth quarter 2019 for inspections and maintenance.																
Pulse-off period December 9, 2019 to January 21, 2020																
1/21/2020		35360	35360	260	1.4 U	0.00E+00	1.4 U	0.00E+00	1.4 U	0.00E+00	14 U	0.00E+00	5.6 U	0.00E+00	1.45E-04	417.08
3/20/2020		36661	36661	180	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	15	2.43E-05	5.3 U	0.00E+00	9.77E-04	418.35
Pulse-off period March 20, 2020 to May 21, 2020																
5/21/2020		36661	36661	180	1.3 U	0.00E+00	1.3 U	0.00E+00	1.3 U	0.00E+00	13 U	0.00E+00	5.3 U	0.00E+00	5.32E-04	418.35

Notes:

Mass removal rate = (flow rate in scfm)(concentration in ppmv)(60)(MW) / (387*1000000)

"U" indicates non-detection at the specified reporting limit; for ND compounds, zero is used in mass removal calculations.

MW molecular weight (values from the U.S. National Library of Medicine)

SCFM standard cubic feet per minute

J Indicates estimated value.

B The analyte was detected in the method, field and/or trip blank.

When a duplicate sample was collected, the original sample results are used in the mass calculations.

Table 4.6
Mass Removal - Phase 1 and Phase 2 AS/SVE Systems
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

Date	Cell 1			Cell 2			Cell 3			Cell 4			Cell 5			Total Cumulative Mass Removal (lb)
	Total Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	
12/3/2009	0															0.00
12/10/2009	53	0.22	11.91													11.91
12/11/2009				59	0.25	15.05										26.97
12/14/2009							60	0.31	18.51							45.48
12/15/2009				68	0.16	16.48										46.91
12/16/2009							76	0.17	21.16							49.55
12/22/2009	124	0.05	15.23													52.86
12/29/2009				180	0.12	29.76										66.15
1/5/2010							236	0.13	41.78							86.77
1/13/2010				301	0.05	35.75										92.75
1/21/2010							361	0.05	48.37							99.35
1/27/2010				408	0.06	42.68										106.27
2/24/2010	631	0.01	20.06	631	0.04	51.44	631	0.04	58.76							130.26
3/15/2010	782	0.01	22.02	782	0.09	64.40	782	0.07	68.60							155.02
4/14/2010	935	0.02	25.22	935	0.04	70.89	935	0.11	84.81							180.92
5/13/2010	1165	0.01	27.75	1165	0.04	79.74	1165	0.03	91.21							198.69
6/21/2010	1477	0.01	30.20	1477	0.02	86.90	1477	0.02	96.92							214.02
7/21/2010	1686	0.01	32.52	1686	0.02	91.24	1686	0.02	101.05							224.81
8/23/2010	1928	0.00	32.52	1928	0.00	91.24	1928	0.00	101.05							224.81
9/23/2010	2174	0.01	34.49	2174	0.02	96.27	2174	0.02	106.49							237.25
10/22/2010	2406	0.01	35.86	2406	0.01	98.85	2406	0.01	109.27							243.98
11/15/2010	2598	0.01	36.96	2598	0.01	101.41	2598	0.01	112.05							250.42
12/22/2010	2777	0.01	38.22	2955	0.02	107.99	2777	0.02	115.44							261.65
1/24/2011	2975	0.01	39.47	3352	0.01	110.39	2975	0.01	117.20							267.06
2/25/2011	3167	0.01	40.53	3737	0.01	114.08	3167	0.00	118.15							272.76
3/11/2011										222	1.72	381.87	218	0.35	75.54	730.17
3/18/2011	3293	0.01	41.27	3988	0.00	114.57	3293	0.00	118.34	366	0.51	453.50	362	0.20	104.77	832.46
3/25/2011										463	0.29	482.07	459	0.14	118.53	874.78
3/30/2011										558	0.32	512.25	553	0.08	126.48	912.92
4/8/2011										764	0.29	572.27	759	0.10	147.32	993.77
4/15/2011	3460	0.01	42.15	4322	0.00	115.07	3460	0.00	118.47	924	0.24	610.05	920	0.09	162.08	1047.81
5/19/2011	3665	0.00	42.87	4732	0.00	115.31	3665	0.00	118.53	1685	0.16	730.28	1681	0.09	233.92	1240.92
6/16/2011	3830	0.00	43.39	5062	0.00	115.55	3830	0.00	118.81	2191	0.11	753.86	2187	0.03	251.58	1283.20
7/15/2011	4472	0.00	44.96	4472	0.00	115.18	4472	0.00	119.39	2750	0.08	830.85	2745	0.03	269.61	1380.36
8/22/2011	4775	0.00	45.59	4775	0.00	115.40	4775	0.01	121.30	3133	0.10	868.97	3129	0.03	280.03	1431.44
9/15/2011	4968	0.00	45.93	4968	0.00	115.51	4968	0.00	121.91	3630	0.08	906.88	3626	0.01	287.36	1477.64
10/14/2011	5199	0.00	46.20	5199	0.00	115.57	5199	0.00	122.54	4226	0.05	935.35	4222	0.01	293.51	1513.18
11/21/2011	5503	0.00	46.43	5503	0.00	115.62	5503	0.00	123.00	5019	0.04	966.50	5015	0.01	298.43	1549.98
12/14/2011	5670	0.00	46.53	5670	0.00	115.65	5670	0.00	123.67	5343	0.03	975.34	5339	0.01	300.62	1561.80
1/19/2012	5974	0.00	46.69	5974	0.00	115.71	5974	0.00	124.59	5993	0.00	975.34	5958	0.00	300.62	1562.94
2/15/2012	6189	0.00	46.80	6189	0.00	115.74	6189	0.01	126.03	6368	0.03	986.48	6364	0.00	300.62	1575.67
3/15/2012	6421	0.00	46.89	6421	0.00	115.79	6421	0.01	127.43	6946	0.03	1005.89	6942	0.00	300.62	1596.62
4/19/2012	6701	0.00	47.04	6701	0.00	115.84	6701	0.00	128.02	7629	0.05	1038.74	7625	0.00	301.65	1631.30
5/16/2012	6916	0.00	47.18	6916	0.00	115.88	6916	0.00	128.27	8143	0.04	1060.30	8138	0.00	303.65	1655.28
Pulse-off period June 1, 2012 to August 14, 2012																
8/14/2012	7094	0.00	47.54	7094	0.00	116.20	7094	0.00	129.03	8546	0.05	1081.05	8541	0.01	306.52	1680.34
9/17/2012	7317	0.00	47.99	7317	0.00	116.40	7317	0.02	133.04	9033	0.04	1102.58	9029	0.01	311.31	1711.33
Pulse-off period September 17, 2012 to November 14, 2012																
11/15/2012	7320	0.00	48.00	7320	0.00	116.40	7320	0.00	133.05	9037	0.05	1102.78	9033	0.01	311.34	1711.56
12/14/2012	7518	0.00	48.24	7518	0.00	116.86	7518	0.00	133.94	9439	0.00	1103.57	9436	0.01	313.67	1716.27

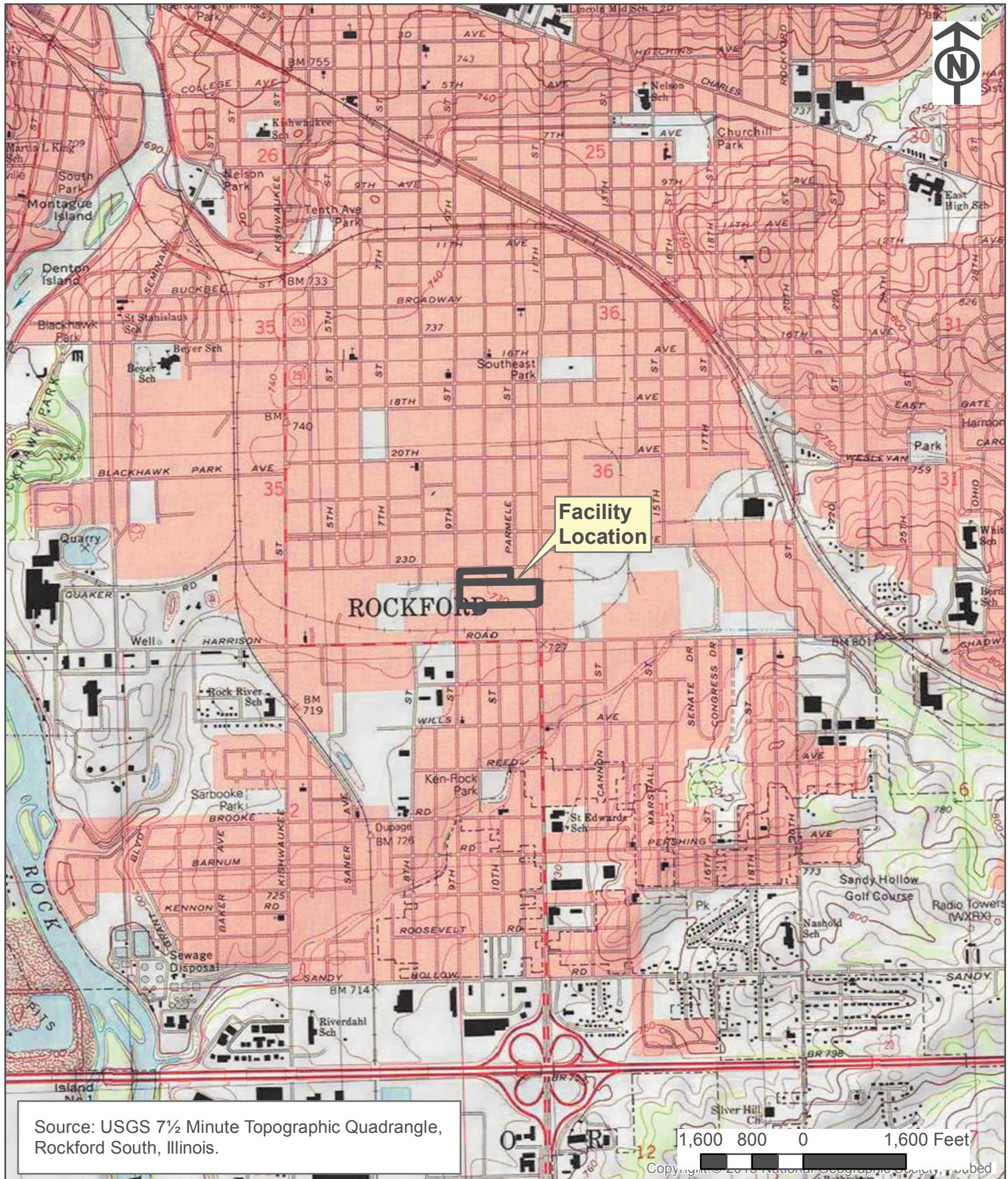
Table 4.6
Mass Removal - Phase 1 and Phase 2 AS/SVE Systems
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

Date	Cell 1			Cell 2			Cell 3			Cell 4			Cell 5			Total Cumulative Mass Removal (lb)
	Total Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	
Pulse-off period December 14, 2012 to February 26, 2013																
2/26/2013	7518	0.00	48.19	7518	0.00	116.86	7519	0.00	133.94	9439	0.00	1103.57	9511	0.00	313.72	1716.32
4/11/2013	7723	0.00	48.32	7723	0.00	116.97	8134	0.00	134.40	9876	0.00	1105.48	9952	0.02	322.58	1727.74
Pulse-off period April 11, 2013 to May 10, 2013																
5/10/2013	7724	0.00	48.32	7724	0.00	116.97	8135	0.00	134.40	9882	0.00	1105.50	9958	0.01	322.66	1727.85
7/15/2013	8039	0.00	48.86	8039	0.00	117.21	9082	0.00	134.70	10907	0.00	1108.40	10984	0.02	339.59	1748.76
Pulse-off period July 15, 2013 to September 9, 2013																
9/9/2013	8040	0.00	48.86	8040	0.00	117.21	9083	0.00	134.70	10914	0.00	1108.44	10991	0.01	339.65	1748.86
11/18/2013	8372	0.00	49.15	8372	0.00	117.30	10081	0.00	136.08	11992	0.00	1110.90	12069	0.02	356.69	1770.12
Pulse-off period November 18, 2013 to January 15, 2014																
1/15/2014	8651	0.00	49.36	8651	0.00	117.51	10916	0.00	136.88	11997	0.00	1110.91	12074	0.01	356.73	1771.39
3/14/2014	8894	0.00	49.48	8894	0.00	117.52	11645	0.00	137.13	12980	0.00	1112.65	13057	0.01	368.96	1785.75
Pulse-off period March 14, 2014 to May 15, 2014																
5/15/2014	8990	0.00	49.54	8990	0.00	117.64	11934	0.00	137.98	12986	0.00	1112.67	13063	0.01	369.01	1786.83
7/23/2014	9321	0.00	50.01	9321	0.00	117.79	12926	0.00	138.52	14627	0.00	1113.02	14714	0.00	371.61	1790.95
Pulse-off period July 23, 2014 to September 16, 2014																
9/16/2014	9494	0.00	50.32	9494	0.00	118.05	13445	0.00	139.28	14628	0.00	1113.03	14715	0.00	371.61	1792.29
11/14/2014	9777	0.00	50.45	9777	0.00	118.12	14294	0.00	139.95	16008	0.00	1116.04	16095	0.00	377.77	1802.33
Pulse-off period November 14, 2014 to January 9, 2015																
1/9/2015	9778	0.00	50.45	9778	0.00	118.12	14299	0.00	139.96	16015	0.00	1116.05	16102	0.00	377.78	1802.36
3/13/2015	10045	0.00	50.56	10045	0.00	118.15	15099	0.00	140.58	17178	0.00	1117.32	17322	0.00	382.64	1809.25
Pulse-off period March 13, 2015 to May 15, 2015																
5/15/2015	10046	0.00	50.56	10046	0.00	118.15	15102	0.00	140.58	17186	0.00	1117.34	17329	0.00	382.66	1809.28
7/16/2015	10343	0.00	50.92	10343	0.00	118.25	15992	0.00	141.23	18436	0.00	1121.16	18578	0.00	384.37	1815.93
Pulse-off period July 16, 2015 to September 22, 2015																
9/22/2015	10343	0.00	50.92	10343	0.00	118.26	15994	0.00	141.24	18439	0.00	1121.16	18580	0.00	384.37	1815.95
11/20/2015	10626	0.00	51.03	10626	0.00	118.33	16842	0.00	141.50	19832	0.00	1126.63	19973	0.00	387.19	1824.68
Pulse-off period November 20, 2015 to January 19, 2016																
1/19/2016	10627	0.00	51.03	10627	0.00	118.33	16846	0.00	141.50	19841	0.00	1126.63	19982	0.00	387.20	1824.70
3/18/2016	10883	0.00	51.14	10883	0.00	118.36	17612	0.00	141.72	21088	0.00	1128.65	21229	0.00	389.97	1829.83
Pulse-off period March 18, 2016 to May 19, 2016																
5/19/2016	10884	0.00	51.14	10884	0.00	118.36	17615	0.00	141.72	21092	0.00	1128.65	21233	0.00	389.97	1829.84
7/22/2016	11190	0.00	51.54	11190	0.00	118.45	17921	0.00	141.87	22610	0.00	1129.38	22751	0.00	392.33	1833.57
Pulse-off period July 22, 2016 to September 20, 2016																
9/20/2016	11191	0.00	51.54	11191	0.00	118.45	17923	0.00	141.87	22611	0.00	1129.38	22752	0.00	392.33	1833.58
11/28/2016	11521	0.00	51.74	11521	0.00	118.53	18915	0.00	141.98	24162	0.00	1129.51	24305	0.00	394.93	1836.69
Pulse-off period November 28, 2016 to January 24, 2017																
1/24/2017	11522	0.00	51.74	11522	0.00	118.53	18917	0.00	141.98	24166	0.00	1129.51	24309	0.00	394.94	1836.69
3/23/2017</td																

Table 4.6
Mass Removal - Phase 1 and Phase 2 AS/SVE Systems
December 2009 - May 2020
Hamilton Sundstrand Corporation
Plant 1/2 Facility
Rockford, Illinois

Date	Cell 1			Cell 2			Cell 3			Cell 4			Cell 5			Total Cumulative Mass Removal (lb)
	Total Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	Run Time (hr)	Mass Removal Rate (lb/hr)	Cumulative Mass Removal (lb)	
Pulse-off period November 17, 2017 to January 22, 2018																
1/22/2018	12401	0.00	52.42	12401	0.00	118.70	21554	0.00	142.89	28489	0.00	1137.01	28634	0.00	406.93	1857.94
3/23/2018	12655	0.00	52.49	12655	0.00	118.70	22316	0.00	143.00	29726	0.00	1138.32	29870	0.00	409.22	1861.73
Pulse-off period March 23, 2018 to May 21, 2018																
5/21/2018	12655	0.00	52.49	12656	0.00	118.70	22318	0.00	143.00	29731	0.00	1138.32	29870	0.00	409.22	1861.74
7/26/2018	12972	0.00	52.96	12972	0.00	118.79	23267	0.00	143.23	30783	0.00	1141.50	31423	0.00	412.07	1868.56
Pulse-off period July 26, 2018 to September 17, 2018																
9/17/2018	13226	0.00	53.47	13226	0.00	119.34	24030	0.00	143.58	30791	0.00	1141.53	31431	0.00	412.08	1870.00
11/19/2018	13528	0.00	53.63	13528	0.00	119.39	24935	0.00	143.70	32280	0.00	1142.65	32920	0.00	413.71	1873.08
Pulse-off period November 19, 2018 to January 21, 2019																
1/21/2019	13529	0.00	53.63	13529	0.00	119.39	24937	0.00	143.70	32284	0.00	1142.65	32944	0.00	413.72	1873.09
3/21/2019	13795	0.00	53.70	13795	0.00	119.41	25737	0.00	143.85	33265	0.00	1143.06	33985	0.00	414.15	1874.18
Pulse-off period March 21, 2019 to May 24, 2019																
5/24/2019	13796	0.00	53.70	13796	0.00	119.41	25738	0.00	143.85	33269	0.00	1143.06	33989	0.00	414.15	1874.18
7/29/2019	14113	0.00	53.99	14113	0.00	119.58	26690	0.00	144.57	34775	0.00	1143.50	35359	0.00	417.08	1878.73
Pulse-off period July 29, 2019 to September 27, 2019																
9/27/2019	14113	0.00	53.99	14113	0.00	119.58	26691	0.00	144.58	34779	0.00	1143.50	-	-	417.08	1878.73
12/9/2019	14444	0.00	54.52	14444	0.00	119.64	34312	0.00	149.89	36495	0.00	1143.65	-	-	417.08	1884.77
Pulse-off period December 9, 2019 to January 21, 2020																
1/21/2020	14445	0.00	54.52	14445	0.00	119.64	34313	0.00	149.89	36523	0.00	1143.66	35360	0.00	417.08	1884.79
3/20/2020	14700	0.00	54.85	14700	0.00	119.70	35077	0.00	150.05	37827	0.00	1143.75	36661	0.00	418.35	1886.70
Pulse-off period March 20, 2020 to May 21, 2020																
5/21/2020	14700	0.00	54.85	14700	0.00	119.70	35078	0.00	150.05	37827	0.00	1143.75	36661	0.00	418.35	1886.70

Figures



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Facility Location Map
Area 9/10 Remedial Action
Southeast Rockford Groundwater
Contamination Superfund Site
Rockford, IL

FIGURE NUMBER

1

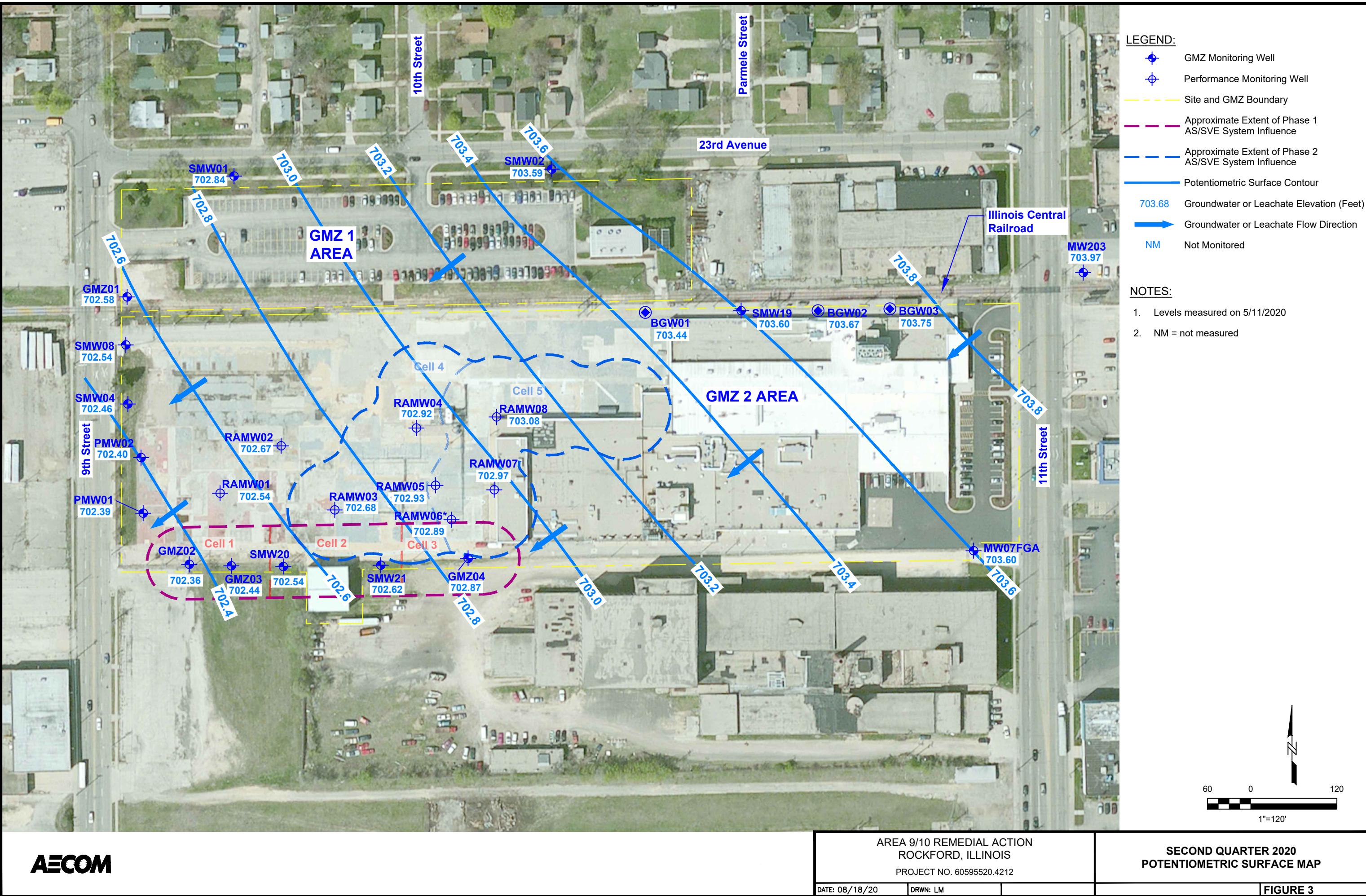
DRAWN BY:	DATE:	PROJECT NUMBER:	FIGURE NUMBER
CC	8/2/2018	60562097.4213	1 of 1

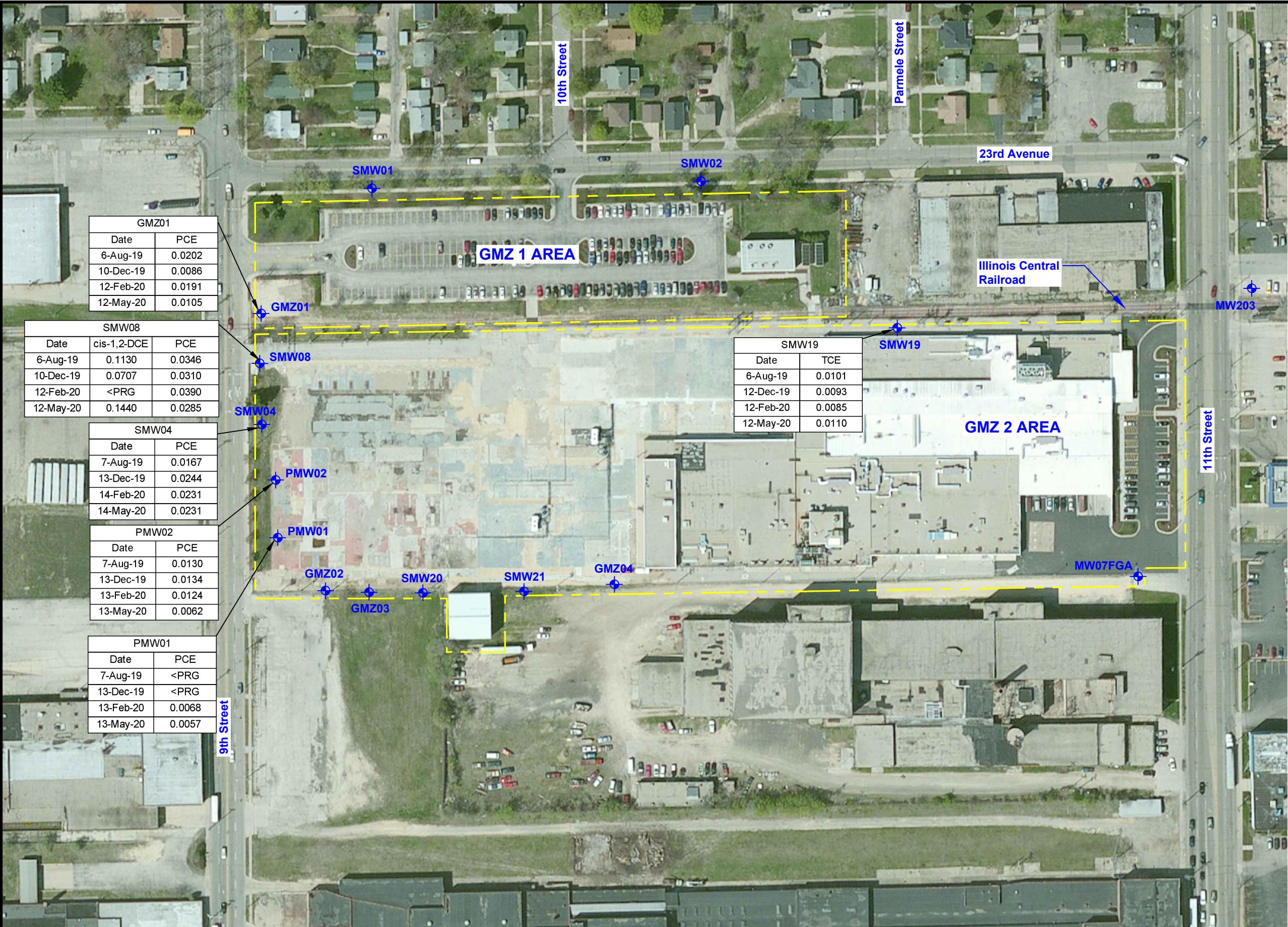


AECOM

AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS
PROJECT NO. 60562097.4213

GMZ / PERFORMANCE
WELL NETWORK

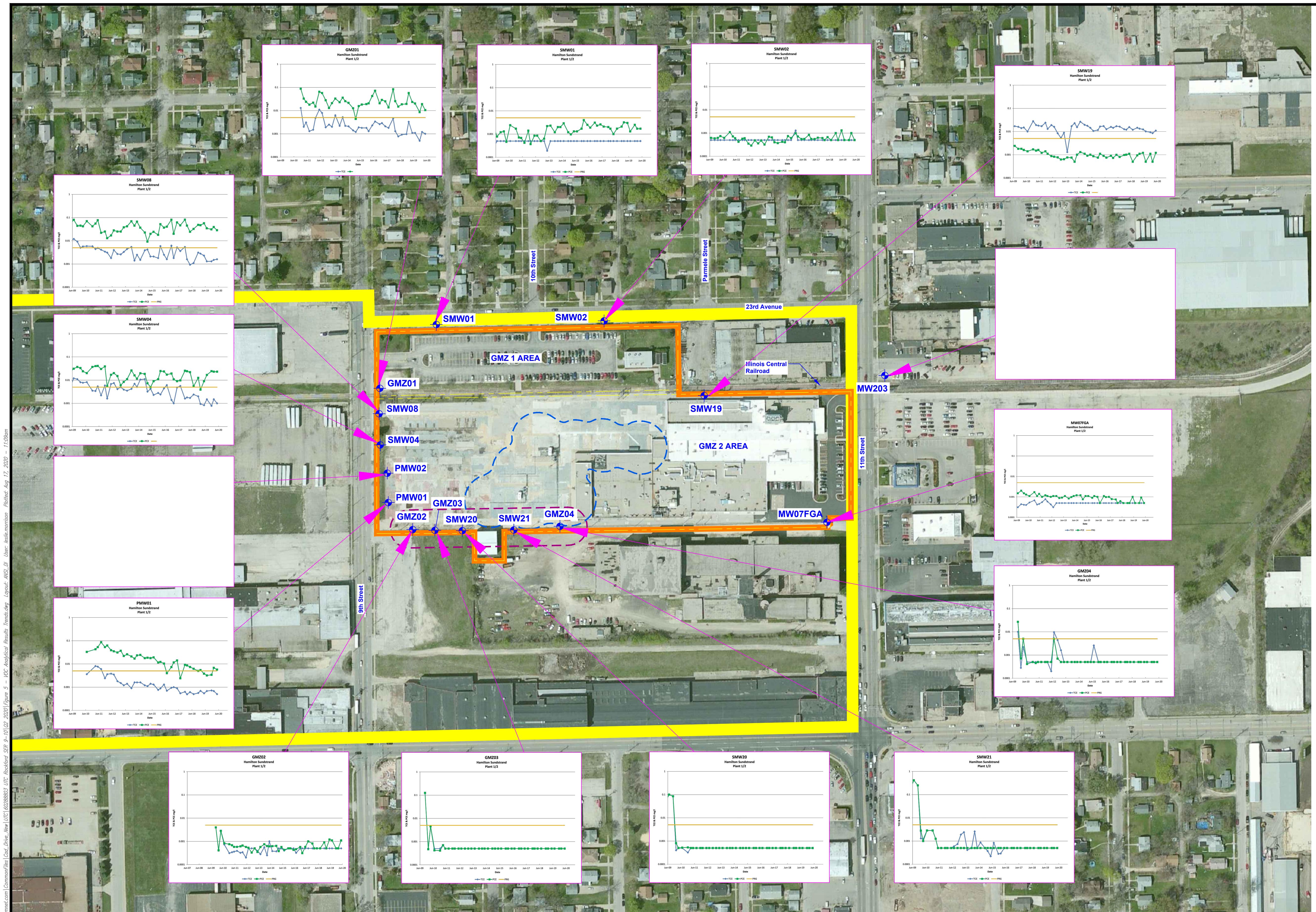


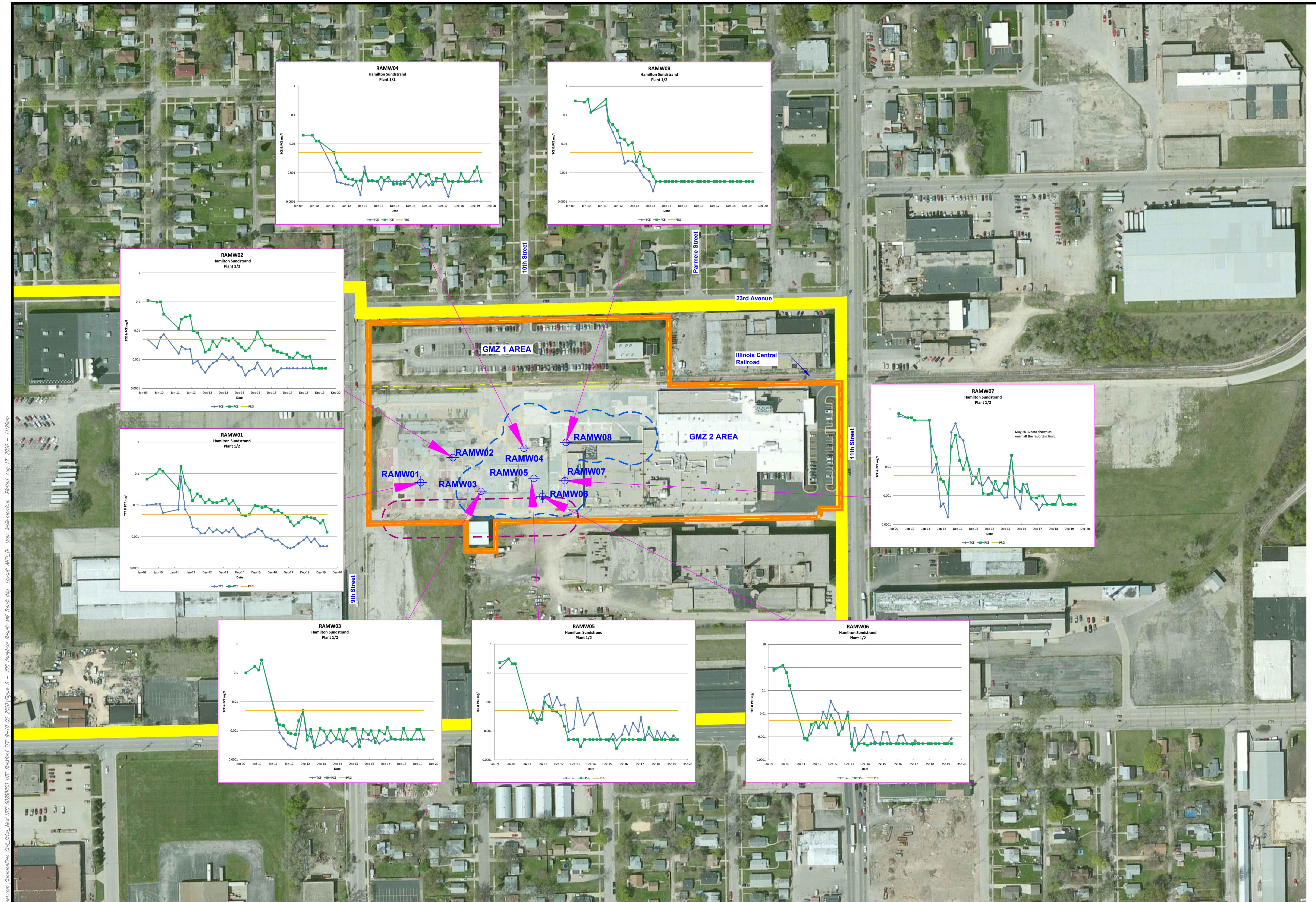


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AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS
PROJECT NO. 60595520.4211

SECOND QUARTER 2020
12 MONTH GMZ WELL LEACHATE
ANALYTICAL RESULTS ABOVE THE PRG





LEGEND:

- Performance Monitoring Wells
- Property and GMZ Boundary
- Source Area 9/10 Boundary
- HS Property Boundary
- PCE
- TCE
- PRG

NOTES:

1. Analytes not detected above the Laboratory estimated quantitation limit are expressed graphically as one half the reporting limit.

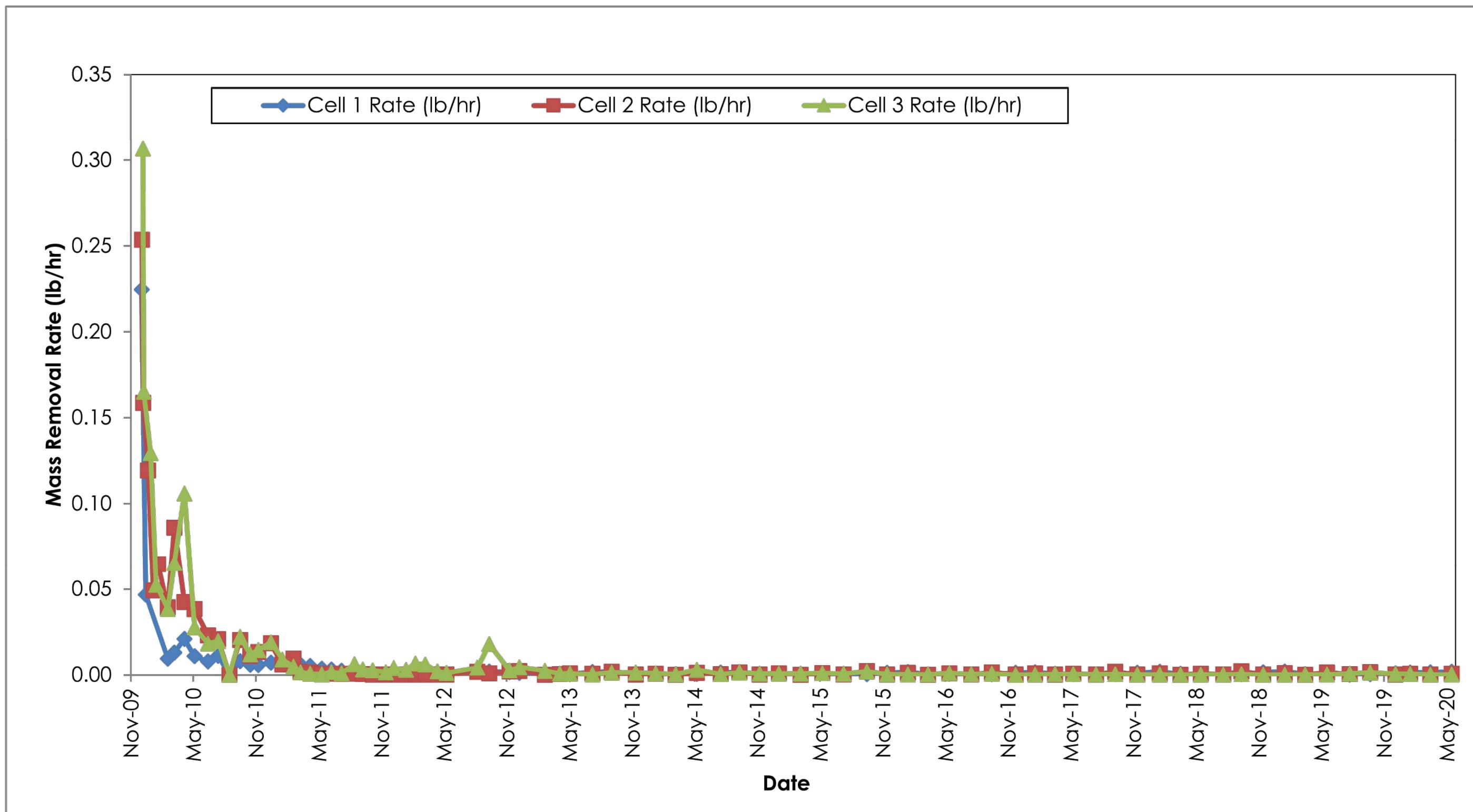
2. Leachate monitoring wells located within the influence of active treatment systems yield leachate sample data that is potentially biased by the treatment activities. This potential bias should be considered during evaluation of this data.

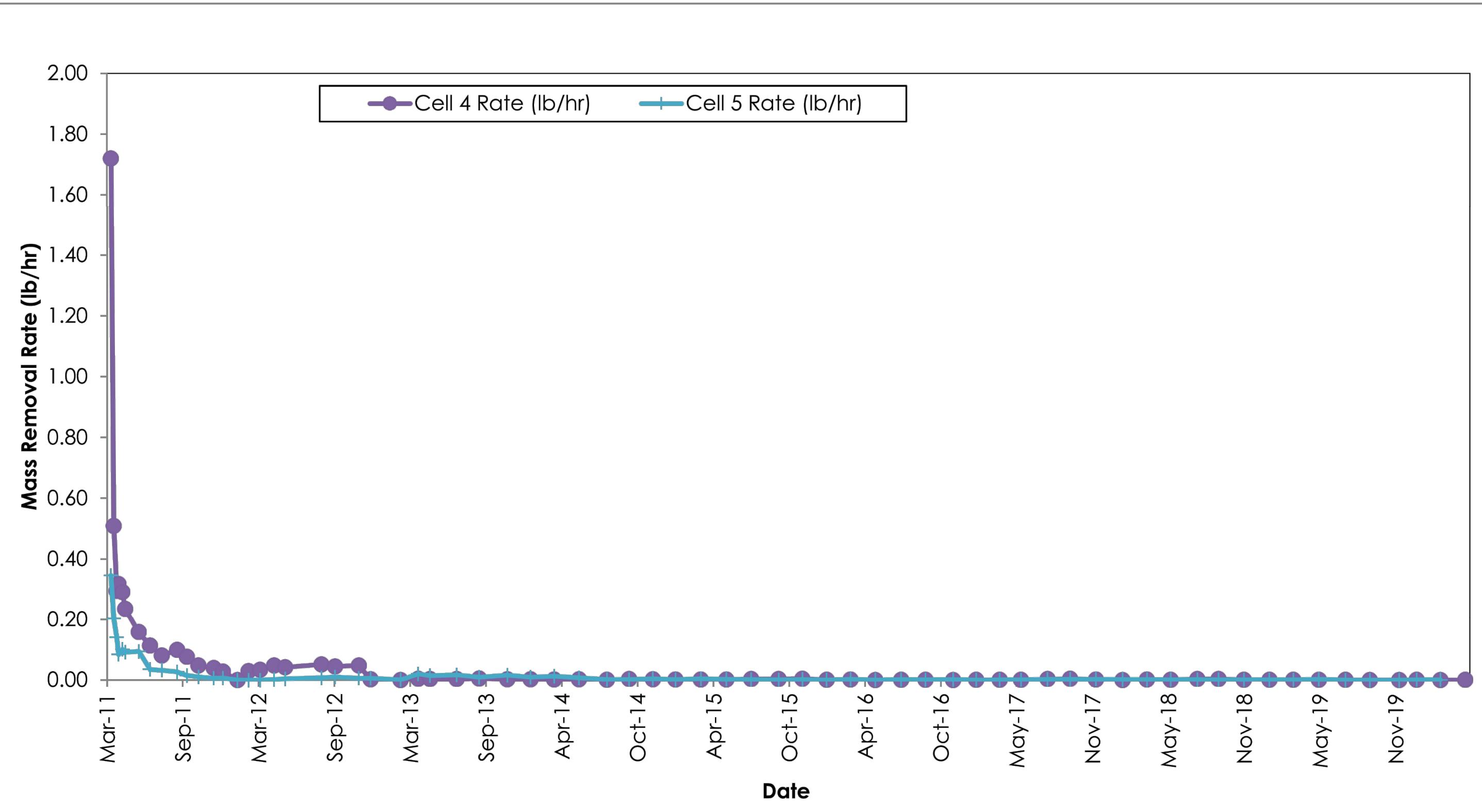
Preliminary Remediation Goal (PRG)	
TCE	0.005 (mg/L)
PCE	0.005 (mg/L)

AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS
PROJECT NO. 60595520.4211

DATE: 07/07/20 DRWN: CC

QUARTERLY PERFORMANCE
MONITORING WELL VOC
ANALYTICAL RESULTS TRENDS





AECOM

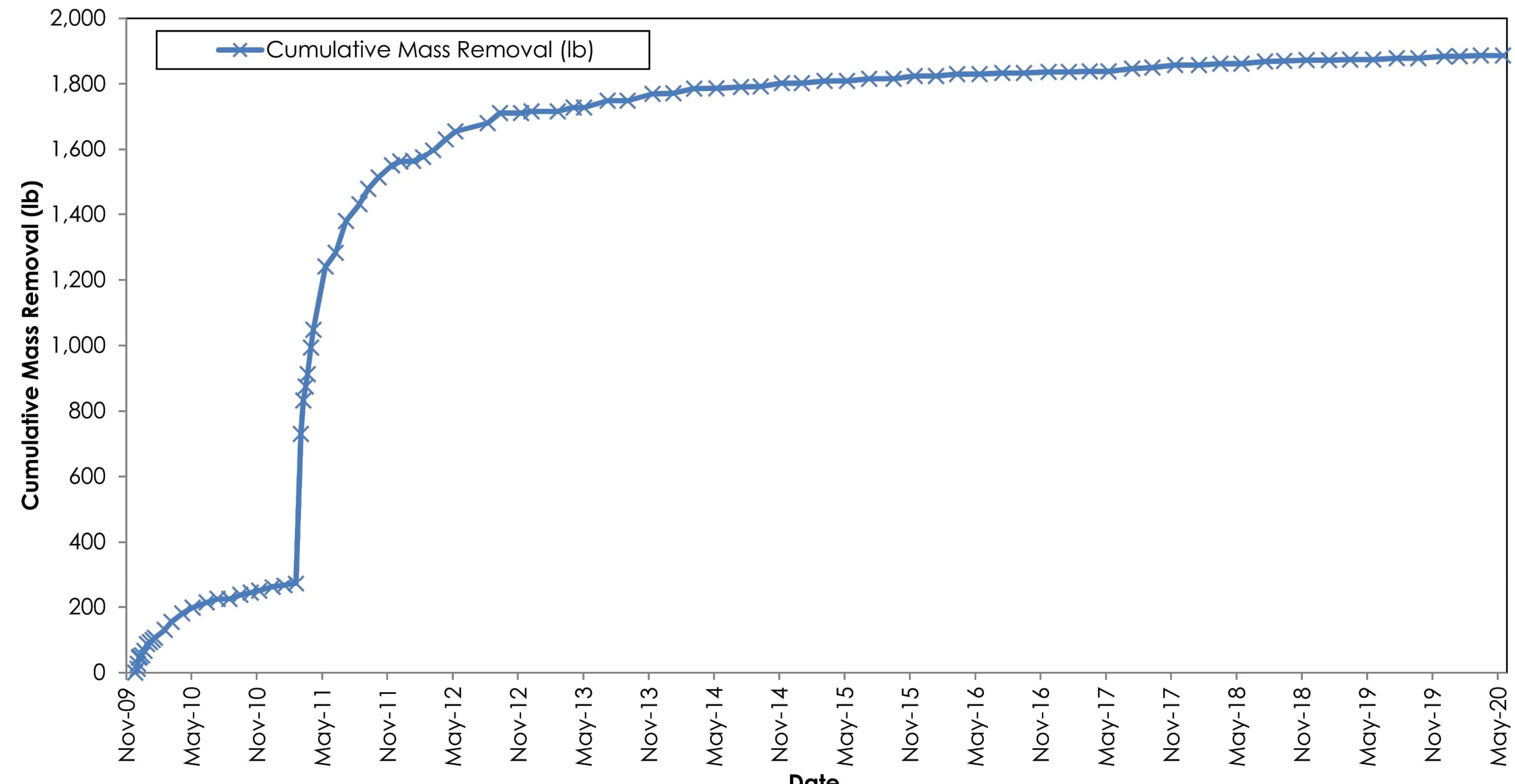
AREA 9/10 REMEDIAL ACTION
ROCKFORD, ILLINOIS
PROJECT NO. 60595520.4211

AVERAGE VOC MASS REMOVAL RATE
VS TIME PHASE 2 AS/SVE SYSTEM

DATE: 08/17/20

DRWN: LLM

FIGURE 8



Appendix A

Second Quarter 2020 GMZ and Performance Monitoring Well Analytical Data

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

United Technologies Corporation

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
60627752

SGS Job Number: JD7277

Sampling Dates: 05/12/20 - 05/14/20



Report to:

AECOM, INC.
4320 Winfield Road
Warrenville, IL 60555
Peter.Hollatz@AECOM.com

ATTN: Peter Hollatz

Total number of pages in report: 222



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Laura Degenhardt
General Manager

Client Service contact: Kelly Ramos 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.

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Sample Summary

United Technologies Corporation

Job No: JD7277

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60627752

Sample Number	Collected Date	Time By	Matrix Received	Code Type	Client Sample ID
---------------	----------------	---------	-----------------	-----------	------------------

This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the MDL

JD7277-1	05/12/20	10:05 AS	05/15/20	AQ	Ground Water	HSSER-SMW08-051220
JD7277-2	05/12/20	10:10 AS	05/15/20	AQ	Field Blank Water	HSSER-FBLK02-051220
JD7277-3	05/12/20	10:25 AH	05/15/20	AQ	Ground Water	HSSER-SMW02-051220
JD7277-4	05/12/20	11:05 AH	05/15/20	AQ	Ground Water	HSSER-MW203-051220
JD7277-5	05/12/20	11:25 AS	05/15/20	AQ	Ground Water	HSSER-GMZ01-051220
JD7277-6	05/12/20	11:50 AH	05/15/20	AQ	Ground Water	HSSER-MW07FGA-051220
JD7277-7	05/12/20	12:30 AS	05/15/20	AQ	Ground Water	HSSER-SMW01-051220
JD7277-8	05/12/20	12:45 AH	05/15/20	AQ	Ground Water	HSSER-SMW19-051220
JD7277-9	05/12/20	14:00 AS	05/15/20	AQ	Ground Water	HSSER-GMZ04-051220
JD7277-10	05/12/20	15:00 AS	05/15/20	AQ	Ground Water	HSSER-SMW21-051220
JD7277-11	05/13/20	09:40 AS	05/15/20	AQ	Ground Water	HSSER-SMW20-051320
JD7277-12	05/13/20	10:35 AS	05/15/20	AQ	Ground Water	HSSER-GMZ03-051320

Sample Summary

(continued)

United Technologies Corporation

Job No: JD7277

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60627752

Sample Number	Collected Date	Time By	Matrix Received	Code Type	Client Sample ID	
JD7277-13	05/13/20	11:55 AS	05/15/20	AQ	Ground Water	HSSER-GMZ02-051320
JD7277-13D	05/13/20	11:55 AS	05/15/20	AQ	Water Dup/MSD	HSSER-MSD01-051320
JD7277-13S	05/13/20	11:55 AS	05/15/20	AQ	Water Matrix Spike	HSSER-MS01-051320
JD7277-14	05/13/20	13:25 AS	05/15/20	AQ	Ground Water	HSSER-PMW01-051320
JD7277-15	05/13/20	14:35 AS	05/15/20	AQ	Ground Water	HSSER-PMW02-051320
JD7277-16	05/13/20	14:50 AS	05/15/20	AQ	Field Blank Water	HSSER-FBLK01-051320
JD7277-17	05/13/20	00:00 AS	05/15/20	AQ	Ground Water	HSSER-DUP01-051320
JD7277-18	05/14/20	09:55 AS	05/15/20	AQ	Ground Water	HSSER-SMW04-051420
JD7277-19	05/14/20	09:55 AS	05/15/20	AQ	Trip Blank Water	HSSER-TBLK01-051220

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: United Technologies Corporation **Job No** JD7277
Site: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL **Report Date** 5/26/2020 5:10:10 PM

On 05/15/2020, 16 Sample(s), 1 Trip Blank(s) and 2 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD7277 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V1A8674

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD7277-13MS, JD7277-13MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Page 1 of 3

Job Number: JD7277

Account: United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Collected: 05/12/20 thru 05/14/20

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
--------------------------	------------------	-----------------	----	-----	-------	--------

JD7277-1 HSSER-SMW08-051220

1,1-Dichloroethane	0.0145	0.0010	0.00057	mg/l	SW846 8260C
1,1-Dichloroethene	0.0013	0.0010	0.00059	mg/l	SW846 8260C
cis-1,2-Dichloroethene	0.144	0.0010	0.00051	mg/l	SW846 8260C
trans-1,2-Dichloroethene	0.00078 J	0.0010	0.00054	mg/l	SW846 8260C
Tetrachloroethene	0.0285	0.0010	0.00090	mg/l	SW846 8260C
1,1,1-Trichloroethane	0.0038	0.0010	0.00054	mg/l	SW846 8260C
Trichloroethene	0.0016	0.0010	0.00053	mg/l	SW846 8260C

JD7277-2 HSSER-FBLK02-051220

No hits reported in this sample.

JD7277-3 HSSER-SMW02-051220

No hits reported in this sample.

JD7277-4 HSSER-MW203-051220

Tetrachloroethene	0.0025	0.0010	0.00090	mg/l	SW846 8260C
-------------------	--------	--------	---------	------	-------------

JD7277-5 HSSER-GMZ01-051220

1,1-Dichloroethane	0.0084	0.0010	0.00057	mg/l	SW846 8260C
cis-1,2-Dichloroethene	0.0029	0.0010	0.00051	mg/l	SW846 8260C
Tetrachloroethene	0.0105	0.0010	0.00090	mg/l	SW846 8260C
1,1,1-Trichloroethane	0.0017	0.0010	0.00054	mg/l	SW846 8260C
Trichloroethene	0.0010	0.0010	0.00053	mg/l	SW846 8260C

JD7277-6 HSSER-MW07FGA-051220

1,1,1-Trichloroethane	0.0012	0.0010	0.00054	mg/l	SW846 8260C
-----------------------	--------	--------	---------	------	-------------

JD7277-7 HSSER-SMW01-051220

Tetrachloroethene	0.0017	0.0010	0.00090	mg/l	SW846 8260C
1,1,1-Trichloroethane	0.00071 J	0.0010	0.00054	mg/l	SW846 8260C

JD7277-8 HSSER-SMW19-051220

cis-1,2-Dichloroethene	0.00059 J	0.0010	0.00051	mg/l	SW846 8260C
Tetrachloroethene	0.0012	0.0010	0.00090	mg/l	SW846 8260C
Trichloroethene	0.0110	0.0010	0.00053	mg/l	SW846 8260C

Summary of Hits

Page 2 of 3

Job Number: JD7277

Account: United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Collected: 05/12/20 thru 05/14/20

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD7277-9 HSSER-GMZ04-051220						
1,1-Dichloroethane		0.0063	0.0010	0.00057	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.0025	0.0010	0.00054	mg/l	SW846 8260C
JD7277-10 HSSER-SMW21-051220						
1,1,1-Trichloroethane		0.00077 J	0.0010	0.00054	mg/l	SW846 8260C
JD7277-11 HSSER-SMW20-051320						
No hits reported in this sample.						
JD7277-12 HSSER-GMZ03-051320						
1,1-Dichloroethane		0.00068 J	0.0010	0.00057	mg/l	SW846 8260C
JD7277-13 HSSER-GMZ02-051320						
1,1-Dichloroethane		0.00071 J	0.0010	0.00057	mg/l	SW846 8260C
Tetrachloroethene		0.0011	0.0010	0.00090	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.00078 J	0.0010	0.00054	mg/l	SW846 8260C
JD7277-14 HSSER-PMW01-051320						
Tetrachloroethene		0.0057	0.0010	0.00090	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.0013	0.0010	0.00054	mg/l	SW846 8260C
JD7277-15 HSSER-PMW02-051320						
1,1-Dichloroethane		0.0026	0.0010	0.00057	mg/l	SW846 8260C
cis-1,2-Dichloroethene		0.0058	0.0010	0.00051	mg/l	SW846 8260C
Tetrachloroethene		0.0062	0.0010	0.00090	mg/l	SW846 8260C
1,1,1-Trichloroethane		0.0019	0.0010	0.00054	mg/l	SW846 8260C
JD7277-16 HSSER-FBLK01-051320						
No hits reported in this sample.						
JD7277-17 HSSER-DUP01-051320						
1,1-Dichloroethane		0.00064 J	0.0010	0.00057	mg/l	SW846 8260C

Summary of Hits

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Job Number: JD7277

Account: United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Collected: 05/12/20 thru 05/14/20

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Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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JD7277-18 HSSER-SMW04-051420

1,1-Dichloroethane	0.00066 J	0.0010	0.00057	mg/l	SW846 8260C
Tetrachloroethene	0.0231	0.0010	0.00090	mg/l	SW846 8260C
1,1,1-Trichloroethane	0.0062	0.0010	0.00054	mg/l	SW846 8260C
Trichloroethene	0.0010	0.0010	0.00053	mg/l	SW846 8260C

JD7277-19 HSSER-TBLK01-051220

No hits reported in this sample.



Dayton, NJ

Section 4

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Sample Results

Report of Analysis

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Client Sample ID: HSSER-SMW08-051220**Lab Sample ID:** JD7277-1**Date Sampled:** 05/12/20**Matrix:** AQ - Ground Water**Date Received:** 05/15/20**Method:** SW846 8260C**Percent Solids:** n/a**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201137.D	1	05/18/20 22:45	BK	n/a	n/a	V1A8674
Run #2							

Purge Volume

Run #1 5.0 ml

Run #2

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0145	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	0.0013	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.144	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	0.00078	0.0010	0.00054	mg/l	J
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0285	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0038	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	0.0016	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		80-120%
17060-07-0	1,2-Dichloroethane-D4	105%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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SGS North America Inc.

Report of Analysis

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Client Sample ID:	HSSER-FBLK02-051220	Date Sampled:	05/12/20
Lab Sample ID:	JD7277-2	Date Received:	05/15/20
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201134.D	1	05/18/20 21:31	BK	n/a	n/a	V1A8674
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	HSSER-SMW02-051220	Date Sampled:	05/12/20
Lab Sample ID:	JD7277-3	Date Received:	05/15/20
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201138.D	1	05/18/20 23:10	BK	n/a	n/a	V1A8674
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID: HSSER-MW203-051220**Lab Sample ID:** JD7277-4**Date Sampled:** 05/12/20**Matrix:** AQ - Ground Water**Date Received:** 05/15/20**Method:** SW846 8260C**Percent Solids:** n/a**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201139.D	1	05/18/20 23:34	BK	n/a	n/a	V1A8674
Run #2							

Purge Volume

Run #1 5.0 ml

Run #2

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0025	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		80-120%
17060-07-0	1,2-Dichloroethane-D4	106%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID: HSSER-GMZ01-051220**Lab Sample ID:** JD7277-5**Matrix:** AQ - Ground Water**Method:** SW846 8260C**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL**Date Sampled:** 05/12/20**Date Received:** 05/15/20**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201140.D	1	05/18/20 23:59	BK	n/a	n/a	V1A8674
Run #2							

Purge Volume

Run #1 5.0 ml

Run #2

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0084	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0029	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0105	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0017	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	0.0010	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		80-120%
17060-07-0	1,2-Dichloroethane-D4	107%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID:	HSSER-MW07FGA-051220	Date Sampled:	05/12/20
Lab Sample ID:	JD7277-6	Date Received:	05/15/20
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201141.D	1	05/19/20 00:24	BK	n/a	n/a	V1A8674
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0012	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		80-120%
17060-07-0	1,2-Dichloroethane-D4	106%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Report of Analysis

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Client Sample ID: HSSER-SMW01-051220**Lab Sample ID:** JD7277-7**Matrix:** AQ - Ground Water**Method:** SW846 8260C**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL**Date Sampled:** 05/12/20**Date Received:** 05/15/20**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201142.D	1	05/19/20 00:49	BK	n/a	n/a	V1A8674
Run #2							

Purge Volume

Run #1 5.0 ml

Run #2

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0017	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00071	0.0010	0.00054	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		80-120%
17060-07-0	1,2-Dichloroethane-D4	107%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Report of Analysis

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Client Sample ID:	HSSER-SMW19-051220	Date Sampled:	05/12/20
Lab Sample ID:	JD7277-8	Date Received:	05/15/20
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201143.D	1	05/19/20 01:14	BK	n/a	n/a	V1A8674
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.00059	0.0010	0.00051	mg/l	J
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0012	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	0.0110	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

SGS North America Inc.

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Client Sample ID:	HSSER-GMZ04-051220	Date Sampled:	05/12/20
Lab Sample ID:	JD7277-9	Date Received:	05/15/20
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201144.D	1	05/19/20 01:38	BK	n/a	n/a	V1A8674
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0063	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0025	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		80-120%
17060-07-0	1,2-Dichloroethane-D4	105%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID:	HSSER-SMW21-051220	Date Sampled:	05/12/20
Lab Sample ID:	JD7277-10	Date Received:	05/15/20
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201145.D	1	05/19/20 02:03	BK	n/a	n/a	V1A8674
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00077	0.0010	0.00054	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID: HSSER-SMW20-051320**Lab Sample ID:** JD7277-11**Date Sampled:** 05/13/20**Matrix:** AQ - Ground Water**Date Received:** 05/15/20**Method:** SW846 8260C**Percent Solids:** n/a**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201146.D	1	05/19/20 02:28	BK	n/a	n/a	V1A8674
Run #2							

Purge Volume

Run #1 5.0 ml

Run #2

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		80-120%
17060-07-0	1,2-Dichloroethane-D4	105%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID:	HSSER-GMZ03-051320	Date Sampled:	05/13/20
Lab Sample ID:	JD7277-12	Date Received:	05/15/20
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201147.D	1	05/19/20 02:52	BK	n/a	n/a	V1A8674
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.00068	0.0010	0.00057	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		80-120%
17060-07-0	1,2-Dichloroethane-D4	105%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID:	HSSER-GMZ02-051320	Date Sampled:	05/13/20
Lab Sample ID:	JD7277-13	Date Received:	05/15/20
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201130.D	1	05/18/20 19:52	BK	n/a	n/a	V1A8674
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.00071	0.0010	0.00057	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0011	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00078	0.0010	0.00054	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		80-120%
17060-07-0	1,2-Dichloroethane-D4	103%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID: HSSER-PMW01-051320**Lab Sample ID:** JD7277-14**Date Sampled:** 05/13/20**Matrix:** AQ - Ground Water**Date Received:** 05/15/20**Method:** SW846 8260C**Percent Solids:** n/a**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201148.D	1	05/19/20 03:17	BK	n/a	n/a	V1A8674
Run #2							

Purge Volume

Run #1 5.0 ml

Run #2

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0057	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0013	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		80-120%
17060-07-0	1,2-Dichloroethane-D4	106%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID:	HSSER-PMW02-051320	Date Sampled:	05/13/20
Lab Sample ID:	JD7277-15	Date Received:	05/15/20
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201149.D	1	05/19/20 03:42	BK	n/a	n/a	V1A8674
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0026	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0058	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0062	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0019	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID:	HSSER-FBLK01-051320	Date Sampled:	05/13/20
Lab Sample ID:	JD7277-16	Date Received:	05/15/20
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201135.D	1	05/18/20 21:56	BK	n/a	n/a	V1A8674
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		80-120%
17060-07-0	1,2-Dichloroethane-D4	105%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID:	HSSER-DUP01-051320	Date Sampled:	05/13/20
Lab Sample ID:	JD7277-17	Date Received:	05/15/20
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201150.D	1	05/19/20 04:07	BK	n/a	n/a	V1A8674
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.00064	0.0010	0.00057	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		80-120%
17060-07-0	1,2-Dichloroethane-D4	106%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID:	HSSER-SMW04-051420	Date Sampled:	05/14/20
Lab Sample ID:	JD7277-18	Date Received:	05/15/20
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201151.D	1	05/19/20 04:31	BK	n/a	n/a	V1A8674
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.00066	0.0010	0.00057	mg/l	J
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0231	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0062	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	0.0010	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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4.19

4

Client Sample ID:	HSSER-TBLK01-051220	Date Sampled:	05/14/20
Lab Sample ID:	JD7277-19	Date Received:	05/15/20
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201136.D	1	05/18/20 22:20	BK	n/a	n/a	V1A8674
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	103%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Misc. Forms**5****Custody Documents and Other Forms**

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



GW
WFD
WTM

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

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FED-EX Tracking # 121560305331 Bufile Order Control #

SGS Quote # JD7277 SGS Job # JD7277

Client / Reporting Information		Project Information		Requested Analysis		Matrix Codes								
Company Name: AECOM	Project Name: UTASSEER Plants 1/2 Fac. 1/1	Street:	City:	Billing Information (if different from Report to)	Company Name:									
Street Address: 4320 Newfield Rd	City:	State:	Zip:											
City: Wilmington State: DE Zip: 19803	City: Newark State: DE Zip: 19801													
Project Contact: Peter Hellertz E-mail: Peter.Hellertz@aecom.com	Project #: 1000827252	Street Address:												
Phone #:	Client Purchase Order #:	City:	State:	Zip:										
Sampler(s) Name(s): A. Hellertz/A. Sulcbecky	Phone #: 1000827252	Project Manager: Peter Hellertz	Attention:											
		Collection												
SGS Sample #	Field ID / Point of Collection	MEOHDI Vial #	Date	Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	(G)	Hg	As	Hg/Hg	Number of preserved Bottles	
1	HSSER-SMW08-051220	S12-20	1005	AS G	6W	3	X							X
2	HSSER-FBL02-051220		1010	AS G	6W	3	X							X
3	HSSER-SMW02-051220		1025	AH G	6W	3	X							X
4	HSSER-MW203-051220		1105	AH G	6W	3	X							X
5	HSSER-GM201-051220		1125	AS G	6W	3	X							X
6	HSSER-MW07FA0-051220		1150	AH G	6W	3	X							X
7	HSSER-SMW01-051220		1230	AS G	6W	3	X							X
8	HSSER-SMW19-051220		1245	AH G	6W	3	X							X
9	HSSER-GM201-051220		1400	AS G	6W	3	X							X
10	HSSER-SMW21-051220		1500	AS G	6W	3	X							X
11	HSSER-SMW20-051220	S13-20	0940	AS G	6W	3	X							X
12	HSSER-GM203-051320	S13-20	1035	AS G	6W	3	X							X
Turn Around Time (Business Days)		Deliverable						Comments / Special Instructions						
<input checked="" type="checkbox"/> 10 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 3 Business Days <input type="checkbox"/> 2 Business Days <input type="checkbox"/> 1 Business Day <input type="checkbox"/> Other _____ <small>All data available via LabLink</small>		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NJ Reduced (Level 3) <input type="checkbox"/> Full Test (Level 4) <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NJ DKQD						<input type="checkbox"/> NYASPC Category A <input type="checkbox"/> NYASPC Category B <input type="checkbox"/> MA MCP Criteria <input type="checkbox"/> CT RCP Criteria <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format						
Approved By (SGS PM): Date: _____		Commercial "A" = Results only; Commercial "B" = Results + QC Summary Commercial "C" = Results + QC Summary + Partial Raw data						Comments / Special Instructions # LIST 13 VOC'S Initial Assessment JAR Label Verification http://www.sns.com/en/terms-and-conditions						
Sample Custody must be documented below each time samples change possession, including courier delivery														
Relinquished by: <u>John Bell</u>	Date / Time: <u>5/14/20 1800</u>	Received By: <u>1 Feder 121560305331</u>	Relinquished By: <u>2</u>	Date / Time: <u>5/15/20 1800</u>	Received By: <u>2</u>									
Relinquished by: <u>3</u>	Date / Time: <u></u>	Received By: <u>3</u>	Relinquished By: <u>4</u>	Date / Time: <u></u>	Received By: <u>4</u>									
Relinquished by: <u>5</u>	Date / Time: <u></u>	Received By: <u>5</u>	Custody Seal #	<input type="checkbox"/> Intact	<input type="checkbox"/> Preserved where applicable	<input type="checkbox"/> Not intact	<input type="checkbox"/> Absent	On Ice: <input checked="" type="checkbox"/>	Cooler Temp: <u>1.60°C SP</u>					
Therm. ID: <u>2a-4</u>														

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

JD7277: Chain of Custody

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CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
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FED-EX Tracking #	Bottle Order Control #
SGS Quote #	SGS Job # JD7277

Client / Reporting Information		Project Information										Requested Analysis		Matrix Codes					
Company Name: AECOM	Project Name: WASSER Plants 1/2 Facility	Street:	City:	State:	Zip:	Billing Information (if different from Report to)										SGS Sample #	Sample Type	Sample Description	Sample Matrix
Street Address: 4320 Winfield Rd	City:	State:	Zip:	City:	State:	Company Name:	Project #:	Street Address:	City:	State:	Zip:	Number of preserved Bottles	Method	Notes					
City:	State:	Zip:	E-mail:	Project #:	Street Address:	City:	State:	Zip:											
Phone #:	Phone #:	Phone #:	Client Purchase Order #:	City:	State:	Zip:													
Sender(s) Name(s): Peter Hellertz	Phone #:	Project Manager: Peter Hellertz	Attention:											LAB USE ONLY					
SGS Sample #		Field ID / Point of Collection		MEONDI Val #		Date	Time	Sampled by	Lab (G)	Comp (C)	Matrix	# of bottles	H ₂ O	HNO ₃	H ₂ SO ₄	D ₂ O Water	EDTA	MICRONE	
13		HSER-GM202-051320		5-13-201155		AS	6	GW	3	X					X				
14		HSER-M501-051320		1155		AS	6	GW	3	X					X				
15		HSER-MSD01-051320		1155		AS	6	GW	3	X					X				
16		HSER-PMU01-051320		1305		AS	6	GW	3	X					X				
17		HSER-PAW02-051320		1435		AS	6	GW	3	X					X				
18		HSER-FBLK01-051320		1450		AS	6	GW	3	X					X				
19		HSER-DPL01-051320		0000		AS	6	GW	3	X					X				
20		HSER-SMV04-051420		5-14-201455		AS	6	GW	3	X					X				
21		HSER-TPLK01-051220		5-12-20		—	—	GW	2	X					X				
Turn Around Time (Business Days)														Deliverable		Comments / Special Instructions			
<input checked="" type="checkbox"/> 10 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 3 Business Days <input type="checkbox"/> 2 Business Days <input type="checkbox"/> 1 Business Day <input type="checkbox"/> Other _____														<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NJ Reduced (Level 3) <input type="checkbox"/> EIA Tier 1 (Level 4) <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NJ DQOP		<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> MA MCP Criteria <input type="checkbox"/> CT RCP Criteria <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format			
Approved By (SGS PM) / Date:														Commercial "A" = Results only; Commercial "B" = Results + QC Summary Commercial "C" = Results + QC Summary + Partial Raw Data		DOD-QSMS			
All data available via LabLink														Approval needed for 1-3 Business Day TAT		to List 13 VOC's *via LabLink on 5/15/20			
Sample Custody must be documented below each time samples change possession, including courier delivery.																http://www.sgs.com/en/terms-and-conditions/			
Relinquished by: <i>John Smith</i>	Date / Time: 5-14-20 1300	Received By: Peter Hellertz	Received On: 12/15/2020 030531	Relinquished By: 2	Date / Time: 5-15-20 10:00	Received By: Peter Hellertz	Received On: 12/15/2020 030531	Relinquished By: 4	Date / Time: 5-15-20 10:00	Received By: Peter Hellertz	Received On: 12/15/2020 030531	On Ice	Cooler Temp. °C						
Relinquished by: 3	Date / Time:	Received By: 3	Received On:	Relinquished By: 4	Date / Time:	Received By: 4	Received On:	Relinquished By: 5	Date / Time:	Received By: Peter Hellertz	Received On:								
Relinquished by: 5	Date / Time:	Received By: 5	Received On:	Custody Seal #:	Intact <input type="checkbox"/> Not intact <input type="checkbox"/>	Preserved where applicable <input type="checkbox"/> Absent <input type="checkbox"/>	Therm. ID: <input type="checkbox"/>												

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

JD7277: Chain of Custody
Page 2 of 3

SGS Sample Receipt Summary

Job Number: JD7277 Client: AECOM, INC. Project: ENSRILW: UTAS PLANTS 1/2 FACILITY, ROCK
 Date / Time Received: 5/15/2020 10:00:00 AM Delivery Method: Airbill #'s:

Cooler Temps (Raw Measured) °C: Cooler 1: (1.6);

Cooler Temps (Corrected) °C: Cooler 1: (1.3);

Cooler Security	Y or N	Y or N	Sample Integrity - Documentation	Y or N
1. Custody Seals Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. Sample labels present on bottles:	<input checked="" type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Container labeling complete:	<input checked="" type="checkbox"/>
			3. Sample container label / COC agree:	<input checked="" type="checkbox"/>
Cooler Temperature		Y or N	Sample Integrity - Condition	
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		1. Sample recvd within HT:	<input checked="" type="checkbox"/>
2. Cooler temp verification:	IR Gun		2. All containers accounted for:	<input checked="" type="checkbox"/>
3. Cooler media:	Ice (Bag)		3. Condition of sample:	Intact
4. No. Coolers:	1			
Quality Control Preservation		Y or N	Sample Integrity - Instructions	Y or N
1. Trip Blank present / cooler:	<input checked="" type="checkbox"/>		1. Analysis requested is clear:	<input checked="" type="checkbox"/>
2. Trip Blank listed on COC:	<input checked="" type="checkbox"/>		2. Bottles received for unspecified tests	<input type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>
4. VOCs headspace free:	<input checked="" type="checkbox"/>		4. Compositing instructions clear:	<input type="checkbox"/>
			5. Filtering instructions clear:	<input type="checkbox"/>
		N/A		

Test Strip Lot #: pH 1-12: 229517 pH 12+: 208717 Other: (Specify) _____

Comments

SM089-03
 Rev. Date 12/7/17

JD7277: Chain of Custody

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5.1

SGS North America Inc.

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JD7277

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60627752

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD7277-1	Collected: 12-MAY-20 10:05 By: AS HSSER-SMW08-051220			Received: 15-MAY-20 By: DG		
JD7277-1	SW846 8260C	18-MAY-20 22:45	BK			V8260SL
JD7277-2	Collected: 12-MAY-20 10:10 By: AS HSSER-FBLK02-051220			Received: 15-MAY-20 By: DG		
JD7277-2	SW846 8260C	18-MAY-20 21:31	BK			V8260SL
JD7277-3	Collected: 12-MAY-20 10:25 By: AH HSSER-SMW02-051220			Received: 15-MAY-20 By: DG		
JD7277-3	SW846 8260C	18-MAY-20 23:10	BK			V8260SL
JD7277-4	Collected: 12-MAY-20 11:05 By: AH HSSER-MW203-051220			Received: 15-MAY-20 By: DG		
JD7277-4	SW846 8260C	18-MAY-20 23:34	BK			V8260SL
JD7277-5	Collected: 12-MAY-20 11:25 By: AS HSSER-GMZ01-051220			Received: 15-MAY-20 By: DG		
JD7277-5	SW846 8260C	18-MAY-20 23:59	BK			V8260SL
JD7277-6	Collected: 12-MAY-20 11:50 By: AH HSSER-MW07FGA-051220			Received: 15-MAY-20 By: DG		
JD7277-6	SW846 8260C	19-MAY-20 00:24	BK			V8260SL
JD7277-7	Collected: 12-MAY-20 12:30 By: AS HSSER-SMW01-051220			Received: 15-MAY-20 By: DG		
JD7277-7	SW846 8260C	19-MAY-20 00:49	BK			V8260SL
JD7277-8	Collected: 12-MAY-20 12:45 By: AH HSSER-SMW19-051220			Received: 15-MAY-20 By: DG		
JD7277-8	SW846 8260C	19-MAY-20 01:14	BK			V8260SL

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JD7277ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60627752

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD7277-9	Collected: 12-MAY-20 14:00 By: AS HSSER-GMZ04-051220			Received: 15-MAY-20 By: DG		
JD7277-9	SW846 8260C	19-MAY-20 01:38	BK			V8260SL
JD7277-10	Collected: 12-MAY-20 15:00 By: AS HSSER-SMW21-051220			Received: 15-MAY-20 By: DG		
JD7277-10	SW846 8260C	19-MAY-20 02:03	BK			V8260SL
JD7277-11	Collected: 13-MAY-20 09:40 By: AS HSSER-SMW20-051320			Received: 15-MAY-20 By: DG		
JD7277-11	SW846 8260C	19-MAY-20 02:28	BK			V8260SL
JD7277-12	Collected: 13-MAY-20 10:35 By: AS HSSER-GMZ03-051320			Received: 15-MAY-20 By: DG		
JD7277-12	SW846 8260C	19-MAY-20 02:52	BK			V8260SL
JD7277-13	Collected: 13-MAY-20 11:55 By: AS HSSER-GMZ02-051320			Received: 15-MAY-20 By: DG		
JD7277-13	SW846 8260C	18-MAY-20 19:52	BK			V8260SL
JD7277-14	Collected: 13-MAY-20 13:25 By: AS HSSER-PMW01-051320			Received: 15-MAY-20 By: DG		
JD7277-14	SW846 8260C	19-MAY-20 03:17	BK			V8260SL
JD7277-15	Collected: 13-MAY-20 14:35 By: AS HSSER-PMW02-051320			Received: 15-MAY-20 By: DG		
JD7277-15	SW846 8260C	19-MAY-20 03:42	BK			V8260SL
JD7277-16	Collected: 13-MAY-20 14:50 By: AS HSSER-FBLK01-051320			Received: 15-MAY-20 By: DG		
JD7277-16	SW846 8260C	18-MAY-20 21:56	BK			V8260SL

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JD7277

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60627752

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD7277-17	HSSEN-DUP01-051320	Collected: 13-MAY-20 00:00	By: AS	Received: 15-MAY-20	By: DG	
JD7277-17	SW846 8260C	19-MAY-20 04:07	BK			V8260SL
JD7277-18	HSSEN-SMW04-051420	Collected: 14-MAY-20 09:55	By: AS	Received: 15-MAY-20	By: DG	
JD7277-18	SW846 8260C	19-MAY-20 04:31	BK			V8260SL
JD7277-19	HSSEN-TBLK01-051220	Collected: 14-MAY-20 09:55	By: AS	Received: 15-MAY-20	By: DG	
JD7277-19	SW846 8260C	18-MAY-20 22:20	BK			V8260SL

SGS Internal Chain of Custody

Page 1 of 3

Job Number: JD7277
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 05/15/20

Sample/Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD7277-1.2	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-1.2	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-1.2	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-1.2	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-2.3	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-2.3	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-2.3	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-2.3	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-3.2	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-3.2	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-3.2	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-3.2	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-4.1	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-4.1	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-4.1	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-4.1	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-5.1	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-5.1	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-5.1	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-5.1	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-6.1	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-6.1	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-6.1	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-6.1	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-7.1	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-7.1	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-7.1	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-7.1	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-8.2	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-8.2	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-8.2	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-8.2	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-9.1	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-9.1	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-9.1	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-9.1	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage

SGS Internal Chain of Custody

Page 2 of 3

Job Number: JD7277
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 05/15/20

Sample/Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD7277-10.1	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-10.1	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-10.1	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-10.1	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-11.1	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-11.1	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-11.1	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-11.1	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-12.1	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-12.1	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-12.1	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-12.1	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-13.3	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-13.3	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-13.3	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-13.3	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-13.4	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-13.4	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-13.4	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-13.4	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-13.7	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-13.7	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-13.7	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-13.7	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-14.2	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-14.2	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-14.2	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-14.2	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-15.1	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-15.1	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-15.1	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-15.1	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-16.1	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-16.1	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-16.1	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument

SGS Internal Chain of Custody

Page 3 of 3

Job Number: JD7277

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Received: 05/15/20

Sample/Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD7277-16.1	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-17.2	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-17.2	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-17.2	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-17.2	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-18.2	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-18.2	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-18.2	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-18.2	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage
JD7277-19.2	Secured Storage	Brittany Klimek	05/18/20 20:10	Retrieve from Storage
JD7277-19.2	Brittany Klimek	GCMS1A	05/18/20 20:10	Load on Instrument
JD7277-19.2	GCMS1A	Bridget Kelly	05/19/20 16:21	Unload from Instrument
JD7277-19.2	Bridget Kelly	Secured Storage	05/19/20 16:21	Return to Storage

MS Volatiles**QC Data Summaries**

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports



Method Blank Summary

Job Number: JD7277
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8674-MB	1A201129.D	1	05/18/20	BK	n/a	n/a	V1A8674

The QC reported here applies to the following samples:

Method: SW846 8260C

JD7277-1, JD7277-2, JD7277-3, JD7277-4, JD7277-5, JD7277-6, JD7277-7, JD7277-8, JD7277-9, JD7277-10, JD7277-11, JD7277-12, JD7277-13, JD7277-14, JD7277-15, JD7277-16, JD7277-17, JD7277-18, JD7277-19

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	106%
17060-07-0	1,2-Dichloroethane-D4	101%
2037-26-5	Toluene-D8	102%
460-00-4	4-Bromofluorobenzene	103%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	1.65	5.5	ug/l	J
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JD7277

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8674-BS	1A201127.D	1	05/18/20	BK	n/a	n/a	V1A8674

The QC reported here applies to the following samples:**Method:** SW846 8260C

JD7277-1, JD7277-2, JD7277-3, JD7277-4, JD7277-5, JD7277-6, JD7277-7, JD7277-8, JD7277-9, JD7277-10, JD7277-11, JD7277-12, JD7277-13, JD7277-14, JD7277-15, JD7277-16, JD7277-17, JD7277-18, JD7277-19

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	54.6	109	79-120
107-06-2	1,2-Dichloroethane	50	48.3	97	78-126
75-35-4	1,1-Dichloroethene	50	51.2	102	69-126
156-59-2	cis-1,2-Dichloroethene	50	51.4	103	80-120
156-60-5	trans-1,2-Dichloroethene	50	50.5	101	76-120
100-41-4	Ethylbenzene	50	49.1	98	80-120
75-09-2	Methylene chloride	50	51.6	103	77-120
127-18-4	Tetrachloroethene	50	46.1	92	70-131
108-88-3	Toluene	50	48.1	96	80-120
71-55-6	1,1,1-Trichloroethane	50	51.7	103	81-128
79-00-5	1,1,2-Trichloroethane	50	50.4	101	83-118
79-01-6	Trichloroethene	50	48.6	97	80-120
75-01-4	Vinyl chloride	50	55.7	111	51-135

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	80-120%
17060-07-0	1,2-Dichloroethane-D4	107%	81-124%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	104%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD7277

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD7277-13MS	1A201131.D	1	05/18/20	BK	n/a	n/a	V1A8674
JD7277-13MSD	1A201132.D	1	05/18/20	BK	n/a	n/a	V1A8674
JD7277-13	1A201130.D	1	05/18/20	BK	n/a	n/a	V1A8674

The QC reported here applies to the following samples:

Method: SW846 8260C

JD7277-1, JD7277-2, JD7277-3, JD7277-4, JD7277-5, JD7277-6, JD7277-7, JD7277-8, JD7277-9, JD7277-10, JD7277-11, JD7277-12, JD7277-13, JD7277-14, JD7277-15, JD7277-16, JD7277-17, JD7277-18, JD7277-19

CAS No.	Compound	JD7277-13		Spike	MS	MS	Spike	MSD	MSD	RPD	Limits Rec/RPD
		ug/l	Q	ug/l	ug/l	%	ug/l	ug/l	%		
75-34-3	1,1-Dichloroethane	0.71	J	50	50.6	100	50	49.8	98	2	73-126/11
107-06-2	1,2-Dichloroethane	ND		50	43.8	88	50	43.6	87	0	72-131/11
75-35-4	1,1-Dichloroethene	ND		50	46.7	93	50	45.9	92	2	63-136/14
156-59-2	cis-1,2-Dichloroethene	ND		50	46.9	94	50	46.2	92	2	60-136/11
156-60-5	trans-1,2-Dichloroethene	ND		50	46.9	94	50	46.2	92	2	70-126/11
100-41-4	Ethylbenzene	ND		50	45.6	91	50	43.8	88	4	51-140/20
75-09-2	Methylene chloride	ND		50	46.9	94	50	46.4	93	1	73-125/13
127-18-4	Tetrachloroethene	1.1		50	44.0	86	50	43.0	84	2	61-139/11
108-88-3	Toluene	ND		50	44.6	89	50	42.5	85	5	60-135/10
71-55-6	1,1,1-Trichloroethane	0.78	J	50	50.4	99	50	49.1	97	3	74-138/12
79-00-5	1,1,2-Trichloroethane	ND		50	45.7	91	50	44.7	89	2	78-121/11
79-01-6	Trichloroethene	ND		50	46.0	92	50	45.3	91	2	62-141/10
75-01-4	Vinyl chloride	ND		50	57.6	115	50	56.6	113	2	43-146/15

CAS No.	Surrogate Recoveries	MS	MSD	JD7277-13	Limits
1868-53-7	Dibromofluoromethane	106%	108%	106%	80-120%
17060-07-0	1,2-Dichloroethane-D4	107%	108%	103%	81-124%
2037-26-5	Toluene-D8	99%	99%	102%	80-120%
460-00-4	4-Bromofluorobenzene	103%	101%	103%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD7277

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	V1A8665-BFB	Injection Date:	05/09/20
Lab File ID:	1A200982.D	Injection Time:	16:10
Instrument ID:	GCMS1A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	12388	17.8	Pass
75	30.0 - 60.0% of mass 95	34757	50.1	Pass
95	Base peak, 100% relative abundance	69424	100.0	Pass
96	5.0 - 9.0% of mass 95	4813	6.93	Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) ^a Pass
174	50.0 - 120.0% of mass 95	63851	92.0	Pass
175	5.0 - 9.0% of mass 174	4842	6.97	(7.58) ^a Pass
176	95.0 - 101.0% of mass 174	62381	89.9	(97.7) ^a Pass
177	5.0 - 9.0% of mass 176	4002	5.76	(6.42) ^b Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A8665-IC8665	1A200983.D	05/09/20	16:42	00:32	Initial cal 0.2
V1A8665-IC8665	1A200984.D	05/09/20	17:07	00:57	Initial cal 0.5
V1A8665-IC8665	1A200985.D	05/09/20	17:31	01:21	Initial cal 1
V1A8665-IC8665	1A200986.D	05/09/20	17:56	01:46	Initial cal 2
V1A8665-IC8665	1A200987.D	05/09/20	18:21	02:11	Initial cal 4
V1A8665-IC8665	1A200988.D	05/09/20	18:46	02:36	Initial cal 8
V1A8665-IC8665	1A200989.D	05/09/20	19:10	03:00	Initial cal 20
V1A8665-ICC8665	1A200990.D	05/09/20	19:35	03:25	Initial cal 50
V1A8665-IC8665	1A200991.D	05/09/20	20:00	03:50	Initial cal 100
V1A8665-IC8665	1A200992.D	05/09/20	20:25	04:15	Initial cal 200
V1A8665-ICV8665	1A200995.D	05/09/20	21:39	05:29	Initial cal verification 50
V1A8665-ICV8665	1A200996.D	05/09/20	22:03	05:53	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD7277

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	V1A8665-BFB2	Injection Date:	05/11/20
Lab File ID:	1A200999.D	Injection Time:	12:59
Instrument ID:	GCMS1A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	14148	18.1	Pass
75	30.0 - 60.0% of mass 95	37501	47.9	Pass
95	Base peak, 100% relative abundance	78267	100.0	Pass
96	5.0 - 9.0% of mass 95	5001	6.39	Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) ^a Pass
174	50.0 - 120.0% of mass 95	70443	90.0	Pass
175	5.0 - 9.0% of mass 174	5507	7.04	(7.82) ^a Pass
176	95.0 - 101.0% of mass 174	69440	88.7	(98.6) ^a Pass
177	5.0 - 9.0% of mass 176	4587	5.86	(6.61) ^b Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A8665-ICV8665	1A201000.D	05/11/20	13:52	00:53	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD7277

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	V1A8674-BFB	Injection Date:	05/18/20
Lab File ID:	1A201126.D	Injection Time:	18:00
Instrument ID:	GCMS1A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	11986	17.9	Pass
75	30.0 - 60.0% of mass 95	31256	46.8	Pass
95	Base peak, 100% relative abundance	66840	100.0	Pass
96	5.0 - 9.0% of mass 95	4683	7.01	Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) ^a Pass
174	50.0 - 120.0% of mass 95	55216	82.6	Pass
175	5.0 - 9.0% of mass 174	4502	6.74	(8.15) ^a Pass
176	95.0 - 101.0% of mass 174	53032	79.3	(96.0) ^a Pass
177	5.0 - 9.0% of mass 176	3581	5.36	(6.75) ^b Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A8674-CC8665	1A201126.D	05/18/20	18:00	00:00	Continuing cal 50
V1A8674-BS	1A201127.D	05/18/20	18:38	00:38	Blank Spike
V1A8674-MB	1A201129.D	05/18/20	19:27	01:27	Method Blank
JD7277-13	1A201130.D	05/18/20	19:52	01:52	HSSER-GMZ02-051320
JD7277-13MS	1A201131.D	05/18/20	20:17	02:17	Matrix Spike
JD7277-13MSD	1A201132.D	05/18/20	20:41	02:41	Matrix Spike Duplicate
ZZZZZZ	1A201133.D	05/18/20	21:06	03:06	(unrelated sample)
JD7277-2	1A201134.D	05/18/20	21:31	03:31	HSSER-FBLK02-051220
JD7277-16	1A201135.D	05/18/20	21:56	03:56	HSSER-FBLK01-051320
JD7277-19	1A201136.D	05/18/20	22:20	04:20	HSSER-TBLK01-051220
JD7277-1	1A201137.D	05/18/20	22:45	04:45	HSSER-SMW08-051220
JD7277-3	1A201138.D	05/18/20	23:10	05:10	HSSER-SMW02-051220
JD7277-4	1A201139.D	05/18/20	23:34	05:34	HSSER-MW203-051220
JD7277-5	1A201140.D	05/18/20	23:59	05:59	HSSER-GMZ01-051220
JD7277-6	1A201141.D	05/19/20	00:24	06:24	HSSER-MW07FGA-051220
JD7277-7	1A201142.D	05/19/20	00:49	06:49	HSSER-SMW01-051220
JD7277-8	1A201143.D	05/19/20	01:14	07:14	HSSER-SMW19-051220
JD7277-9	1A201144.D	05/19/20	01:38	07:38	HSSER-GMZ04-051220
JD7277-10	1A201145.D	05/19/20	02:03	08:03	HSSER-SMW21-051220
JD7277-11	1A201146.D	05/19/20	02:28	08:28	HSSER-SMW20-051320
JD7277-12	1A201147.D	05/19/20	02:52	08:52	HSSER-GMZ03-051320
JD7277-14	1A201148.D	05/19/20	03:17	09:17	HSSER-PMW01-051320
JD7277-15	1A201149.D	05/19/20	03:42	09:42	HSSER-PMW02-051320
JD7277-17	1A201150.D	05/19/20	04:07	10:07	HSSER-DUP01-051320

Instrument Performance Check (BFB)

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Job Number: JD7277

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	V1A8674-BFB	Injection Date:	05/18/20
Lab File ID:	1A201126.D	Injection Time:	18:00
Instrument ID:	GCMS1A		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
JD7277-18	1A201151.D	05/19/20	04:31	10:31	HSSER-SMW04-051420

6.4.3
6

Internal Standard Area Summary

Page 1 of 1

Job Number: JD7277

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Check Std:	V1A8674-CC8665	Injection Date:	05/18/20
Lab File ID:	1A201126.D	Injection Time:	18:00
Instrument ID:	GCMS1A	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	134236	3.29	164837	4.53	253096	5.11	236709	7.54	113805	9.75
Upper Limit ^a	268472	3.79	329674	5.03	506192	5.61	473418	8.04	227610	10.25
Lower Limit ^b	67118	2.79	82419	4.03	126548	4.61	118355	7.04	56903	9.25

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V1A8674-BS	138763	3.29	180374	4.53	270915	5.11	253876	7.53	124810	9.74
V1A8674-MB	135851	3.29	184432	4.53	281094	5.11	255354	7.53	124905	9.74
JD7277-13	145131	3.29	187493	4.53	282347	5.11	261337	7.53	129403	9.74
JD7277-13MS	141474	3.29	183540	4.53	277384	5.11	264296	7.54	132798	9.74
JD7277-13MSD	148051	3.29	186212	4.53	282515	5.11	273120	7.54	137837	9.74
ZZZZZZ	153165	3.29	195860	4.53	296330	5.11	276391	7.53	136890	9.75
JD7277-2	153496	3.29	201484	4.53	300710	5.11	278899	7.53	136169	9.74
JD7277-16	150346	3.29	190328	4.53	288170	5.11	266817	7.53	132302	9.75
JD7277-19	136551	3.29	191040	4.53	287217	5.11	264166	7.53	129200	9.74
JD7277-1	138264	3.29	186109	4.53	280706	5.11	266274	7.53	131407	9.74
JD7277-3	152664	3.29	189161	4.53	288782	5.11	270531	7.53	133497	9.74
JD7277-4	139984	3.29	189702	4.53	284047	5.11	268481	7.54	130400	9.74
JD7277-5	141235	3.29	186423	4.53	280039	5.11	263816	7.53	130500	9.74
JD7277-6	143483	3.29	190547	4.53	285609	5.11	268086	7.54	132276	9.74
JD7277-7	149023	3.29	191847	4.53	286120	5.11	269505	7.53	133646	9.75
JD7277-8	148586	3.29	188392	4.53	286040	5.11	265758	7.54	131494	9.75
JD7277-9	143150	3.29	188802	4.53	285034	5.11	267076	7.54	130282	9.75
JD7277-10	136997	3.29	182188	4.53	275499	5.11	255678	7.53	127225	9.74
JD7277-11	139540	3.29	182421	4.53	276864	5.11	256315	7.53	129419	9.75
JD7277-12	141970	3.29	184160	4.53	278935	5.11	260291	7.53	126214	9.74
JD7277-14	139285	3.29	182000	4.53	276825	5.11	260061	7.54	126378	9.74
JD7277-15	135526	3.29	185117	4.53	278819	5.11	259183	7.53	127583	9.74
JD7277-17	141122	3.29	183199	4.53	274516	5.11	258013	7.54	128888	9.75
JD7277-18	138917	3.29	184956	4.53	278616	5.11	258515	7.53	126157	9.75

IS 1 = Tert Butyl Alcohol-D9

IS 2 = Pentafluorobenzene

IS 3 = 1,4-Difluorobenzene

IS 4 = Chlorobenzene-D5

IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.5.1
6

Surrogate Recovery Summary

Page 1 of 1

Job Number: JD7277

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Method: SW846 8260C

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD7277-1	1A201137.D	109	105	100	103
JD7277-2	1A201134.D	107	104	103	104
JD7277-3	1A201138.D	112	104	101	103
JD7277-4	1A201139.D	110	106	101	103
JD7277-5	1A201140.D	109	107	101	102
JD7277-6	1A201141.D	109	106	102	103
JD7277-7	1A201142.D	108	107	101	102
JD7277-8	1A201143.D	109	104	102	104
JD7277-9	1A201144.D	108	105	102	103
JD7277-10	1A201145.D	107	104	102	101
JD7277-11	1A201146.D	109	105	103	101
JD7277-12	1A201147.D	109	105	101	104
JD7277-13	1A201130.D	106	103	102	103
JD7277-14	1A201148.D	110	106	102	104
JD7277-15	1A201149.D	108	104	102	102
JD7277-16	1A201135.D	109	105	103	103
JD7277-17	1A201150.D	108	106	102	101
JD7277-18	1A201151.D	107	104	102	103
JD7277-19	1A201136.D	107	103	102	103
JD7277-13MS	1A201131.D	106	107	99	103
JD7277-13MSD	1A201132.D	108	108	99	101
V1A8674-BS	1A201127.D	106	107	100	104
V1A8674-MB	1A201129.D	106	101	102	103

Surrogate Compounds

Recovery Limits

S1 = Dibromofluoromethane

80-120%

S2 = 1,2-Dichloroethane-D4

81-124%

S3 = Toluene-D8

80-120%

S4 = 4-Bromofluorobenzene

80-120%

6.6.1
6

Initial Calibration Summary

Page 1 of 5

Job Number: JD7277**Sample:** V1A8665-ICC8665**Account:** UTC United Technologies Corporation**Lab FileID:** 1A200990.D**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Response Factor Report MSDTEST1A

Method : C:\MSDCHEM\1\METHODS\M1A8665.M (RTE Integrator)
 Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 Last Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Calibration Files

8	=1A200988.D	0.5	=1A200984.D	4	=1A200987.D	50	=1A200990.D
100	=1A200991.D	1	=1A200985.D	200	=1A200992.D	20	=1A200989.D
2	=1A200986.D	0.2	=1A200983.D	=	=	=	=

Compound

	8	0.5	4	50	100	1	200	20	2	0.2	Avg	%RSD
--	---	-----	---	----	-----	---	-----	----	---	-----	-----	------

1) I tert Butyl Alcohol-d9	-----ISTD-----										
2) 1,4-dioxane											
	0.119	0.131	0.121	0.132		0.137	0.123	0.138		0.129	5.98
3) ethanol											
	0.125	0.133	0.118	0.120	0.135	0.107	0.122	0.142		0.125	8.99
4) tertiary butyl alcohol											
	1.384	1.430	1.428	1.304	1.387	1.378	1.358	1.316	1.499	1.387	4.35
5) I pentafluorobenzene	-----ISTD-----										
6) chlorodifluoromethane											
	0.373	0.334	0.399	0.368	0.402	0.376	0.399	0.385	0.415	0.397	0.385
7) dichlorodifluoromethane											
	0.476	0.541	0.481	0.503	0.538	0.554	0.534	0.518	0.479	0.511	0.513
8) chloromethane											
	0.375	0.458	0.367	0.370	0.386	0.407	0.413	0.393	0.391		0.396
9) vinyl chloride											
	0.408	0.495	0.413	0.439	0.473	0.440	0.469	0.460	0.447	0.523	0.457
10) bromomethane											
	0.118	0.112	0.117	0.131		0.107	0.120	0.150		0.122	11.66
11) chloroethane											
	0.245	0.251	0.241	0.246	0.293	0.216	0.248	0.270		0.251	8.86
12) vinyl bromide											
	0.233	0.228	0.229	0.239	0.254	0.259	0.239	0.251	0.235		0.241
13) trichlorofluoromethane											
	0.565	0.575	0.564	0.589	0.610	0.562	0.589	0.602	0.587	0.563	0.581
14) ethyl ether											
	0.201	0.196	0.206	0.205	0.213	0.216	0.213	0.209	0.200		0.207
15) acrolein											
	0.103	0.105	0.099	0.108		0.105	0.098	0.122		0.106	7.59
16) freon 113											
	0.273	0.234	0.271	0.272	0.279	0.249	0.274	0.279	0.284		0.268
17) 1,1-dichloroethene											
	0.323	0.308	0.326	0.316	0.335	0.336	0.317	0.333	0.337		0.326
18) acetone											
	0.047	0.052	0.052	0.047	0.049	0.060	0.049	0.049	0.054		0.051
19) acetonitrile											
	0.038	0.039	0.037	0.038		0.039	0.038	0.038		0.038	1.65
20) iodomethane	*This compound fails Initial Calibration criteria*										
	0.092	0.066	0.226	0.299		0.335	0.154	0.070		0.178	62.53
21) iso-butyl alcohol											
	0.029	0.032	0.028	0.032		0.031	0.031	0.030		0.030	4.69
22) carbon disulfide											
	0.861	0.997	0.842	0.830	0.882	0.860	0.896	0.851	0.884		0.878
23) methylene chloride											

6.7.1
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Initial Calibration Summary**Job Number:** JD7277**Sample:** V1A8665-ICC8665**Account:** UTC United Technologies Corporation**Lab FileID:** 1A200990.D**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

24)	methyl acetate	0.372 0.429 0.374 0.362 0.386 0.359 0.380 0.376 0.376 0.088 0.098 0.096 0.099 0.074 0.098 0.096 0.088	0.379	5.35
25)	methyl tert butyl ether	1.151 1.129 1.184 1.163 1.213 1.124 1.195 1.190 1.175 1.337 1.186 0.383 0.370 0.357 0.369 0.389 0.369 0.379 0.384 0.382 0.389 0.377	0.092	9.19
26)	trans-1,2-dichloroethene	1.221 1.214 1.238 1.215 1.275 1.254 1.244 1.229 1.271 1.503 1.266 0.575 0.566 0.582 0.570 0.617 0.555 0.621 0.591 0.599 0.726 0.600	5.06	8.20
27)	hexane	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.575 0.566 0.582 0.570 0.617 0.555 0.621 0.591 0.599 0.726 0.600	2.79	6.77
28)	di-isopropyl ether	1.221 1.214 1.238 1.215 1.275 1.254 1.244 1.229 1.271 1.503 1.266 0.575 0.566 0.582 0.570 0.617 0.555 0.621 0.591 0.599 0.726 0.600	3.92	8.20
29)	ethyl tert-butyl ether	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.575 0.566 0.582 0.570 0.617 0.555 0.621 0.591 0.599 0.726 0.600	3.23	6.77
30)	2-butanone	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.072 0.073 0.067 0.073 0.075 0.070 0.074 0.071 0.070	0.072	3.92
31)	1,1-dichloroethane	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.691 0.589 0.666 0.663 0.694 0.656 0.677 0.677 0.685 0.680 0.668	4.54	8.20
32)	chloroprene	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.576 0.518 0.579 0.561 0.591 0.517 0.575 0.586 0.586 0.551 0.564	4.87	6.77
33)	acrylonitrile	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.192 0.161 0.206 0.201 0.209 0.182 0.212 0.205 0.193	0.196	8.17
34)	vinyl acetate	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.094 0.089 0.092 0.101 0.092 0.100 0.100 0.090	0.095	5.02
35)	ethyl acetate	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.081 0.077 0.098 0.098 0.085 0.096 0.090 0.085	0.089	8.89
36)	2,2-dichloropropane	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.559 0.596 0.569 0.546 0.570 0.583 0.555 0.578 0.616 0.526 0.570	4.48	4.48
37)	cis-1,2-dichloroethene	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.421 0.407 0.428 0.419 0.441 0.430 0.426 0.440 0.428 0.500 0.434	5.81	5.81
38)	propionitrile	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.087 0.091 0.084 0.086 0.089 0.086 0.086 0.089 0.088 0.074 0.086	5.60	5.60
39)	methyl acrylate	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.086 0.075 0.084 0.088 0.087 0.084 0.086 0.089	0.085	4.95
40)	bromochloromethane	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.206 0.201 0.210 0.199 0.200 0.214 0.197 0.204 0.204	0.204	2.66
41)	tetrahydrofuran	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.088 0.085 0.084 0.088 0.086 0.087 0.086 0.081	0.086	2.78
42)	chloroform	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.716 0.750 0.679 0.710 0.996 0.694 0.705 0.823	0.759	13.89
43)	dibromofluoromethane (s)	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.413 0.407 0.413 0.415 0.415 0.409 0.419 0.412 0.413 0.415 0.413	0.79	0.79
44)	methacrylonitrile	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.210 0.232 0.215 0.217 0.228 0.203 0.226 0.215 0.206	0.217	4.57
45)	1,1,1-trichloroethane	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.611 0.599 0.608 0.620 0.660 0.644 0.655 0.630 0.640 0.556 0.622	4.98	4.98
46)	cyclohexane	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.553 0.577 0.574 0.544 0.569 0.616 0.572 0.570 0.576	0.572	3.48
47)	1,1-dichloropropene	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.539 0.532 0.530 0.526 0.545 0.588 0.541 0.530 0.552 0.505 0.539	4.02	4.02
48)	carbon tetrachloride	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.531 0.493 0.543 0.543 0.568 0.528 0.554 0.553 0.525	0.537	4.06
49)	isopropyl acetate	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.117 0.120 0.121 0.124 0.113 0.125 0.120 0.108	0.119	4.73
50)	tert amyl alcohol	1.268 1.234 1.288 1.246 1.317 1.273 1.311 1.272 1.303 1.415 1.293 0.031 0.029 0.033 0.030 0.030 0.029 0.028 0.031 0.033	0.031	5.99
51)	I 1,4-difluorobenzene	-----ISTD-----		
52)	1,2-dichloroethane-d4 (s)	0.330 0.327 0.334 0.345 0.313 0.332 0.305 0.333 0.331 0.333 0.328	3.40	
53)	tert-amyl methyl ether			

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Initial Calibration Summary**Job Number:** JD7277**Sample:** V1A8665-ICC8665**Account:** UTC United Technologies Corporation**Lab FileID:** 1A200990.D**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	0.866	0.818	0.876	0.846	0.886	0.837	0.862	0.868	0.903	0.899	0.866	3.11
54)	2,2,4-trimethylpentane											
	0.833	0.856	0.830	0.805	0.855	0.834	0.831	0.832	0.889	0.938	0.850	4.46
55)	n-butyl alcohol											
	0.014	0.014	0.014	0.015	0.016	0.013	0.016	0.015	0.012		0.014	8.66
56)	benzene											
	1.094	1.072	1.065	1.050	1.100	1.077	1.072	1.075	1.102	1.275	1.098	5.83
57)	heptane											
	0.202	0.204	0.195	0.193	0.207	0.196	0.206	0.200	0.195		0.200	2.70
58)	1,2-dichloroethane											
	0.375	0.455	0.394	0.358	0.371	0.435	0.358	0.377	0.410		0.393	8.74
59)	trichloroethene											
	0.285	0.286	0.276	0.277	0.295	0.285	0.288	0.283	0.286		0.284	2.02
60)	ethyl acrylate											
	0.452	0.506	0.462	0.471	0.497	0.429	0.478	0.470	0.469	0.545	0.478	6.64
61)	2-nitropropane											
	0.076		0.098	0.113	0.126		0.116	0.096	0.092		0.102	16.51
62)	2-chloroethyl vinyl ether											
	0.191	0.166	0.186	0.195	0.206	0.170	0.196	0.195	0.186	0.183	0.188	6.41
63)	methyl methacrylate											
	0.095		0.091	0.100	0.105	0.101	0.103	0.102	0.084		0.098	7.34
64)	1,2-dichloropropane											
	0.271	0.261	0.263	0.269	0.284	0.277	0.276	0.273	0.272		0.272	2.55
65)	methylcyclohexane											
	0.474	0.504	0.470	0.479	0.505	0.501	0.493	0.476	0.467		0.485	3.17
66)	dibromomethane											
	0.171	0.149	0.176	0.168	0.178	0.160	0.174	0.174	0.173		0.169	5.49
67)	bromodichloromethane											
	0.372	0.382	0.369	0.365	0.405	0.388	0.395	0.377	0.353	0.426	0.383	5.59
68)	cis-1,3-dichloropropene											
	0.411	0.396	0.408	0.437	0.475	0.410	0.461	0.440	0.431	0.375	0.424	7.12
69)	epichlorohydrin											
	0.028	0.023	0.032	0.030	0.032	0.026	0.032	0.031	0.029		0.029	9.93
70)	4-methyl-2-pentanone											
	0.155	0.150	0.160	0.154	0.165	0.150	0.159	0.160	0.157	0.136	0.155	5.27
71)	3-methyl-1-butanol											
	0.013		0.012	0.014	0.015		0.015	0.014	0.011		0.013	9.09
72)	I chlorobenzene-d5											
73)	toluene-d8 (s)											
	1.241	1.241	1.249	1.212	1.170	1.247	1.177	1.220	1.230	1.255	1.224	2.43
74)	toluene											
	0.753	0.717	0.773	0.737	0.769	0.807	0.754	0.757	0.775	0.856	0.770	5.00
75)	trans-1,3-dichloropropene											
	0.403	0.390	0.400	0.425	0.453	0.373	0.451	0.424	0.375	0.430	0.412	7.00
76)	ethyl methacrylate											
	0.452	0.423	0.442	0.457	0.474	0.414	0.461	0.463	0.433	0.467	0.449	4.40
77)	1,1,2-trichloroethane											
	0.235	0.266	0.247	0.228	0.241	0.214	0.236	0.232	0.238		0.237	5.97
78)	2-hexanone											
	0.178	0.172	0.177	0.172	0.176	0.167	0.171	0.182	0.174	0.157	0.173	4.09
79)	tetrachloroethene											
	0.368	0.344	0.364	0.352	0.366	0.370	0.358	0.367	0.367	0.374	0.363	2.57
80)	1,3-dichloropropane											
	0.467	0.472	0.467	0.454	0.472	0.465	0.458	0.470	0.452		0.464	1.62
81)	butyl acetate											
	0.263	0.265	0.269	0.261	0.274	0.263	0.266	0.271	0.265		0.266	1.55
82)	dibromochloromethane											
	0.305	0.278	0.295	0.310	0.335	0.266	0.330	0.313	0.290		0.302	7.46
83)	1,2-dibromoethane											

6.7.1
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Initial Calibration Summary**Job Number:** JD7277**Sample:** V1A8665-ICC8665**Account:** UTC United Technologies Corporation**Lab FileID:** 1A200990.D**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

84)	n-butyl ether	0.366 0.336 0.360 0.354 0.373 0.380 0.365 0.366 0.355 1.275 1.180 1.262 1.259 1.327 1.300 1.292 1.286 1.283 1.407 1.287 4.43	0.362	3.51
85)	chlorobenzene	0.860 0.821 0.857 0.820 0.875 0.795 0.854 0.852 0.838 0.922 0.849 4.11		
86)	1,1,1,2-tetrachloroethane	0.296 0.288 0.304 0.291 0.306 0.293 0.291 0.302 0.282 0.295 2.70	0.295	2.70
87)	ethylbenzene	1.482 1.379 1.417 1.403 1.458 1.450 1.402 1.459 1.465 1.552 1.447 3.44		
88)	m,p-xylene	0.568 0.552 0.571 0.542 0.572 0.557 0.550 0.572 0.563 0.609 0.566 3.24		
89)	o-xylene	0.561 0.552 0.561 0.535 0.573 0.558 0.554 0.553 0.594 0.643 0.568 5.32		
90)	butyl acrylate	0.644 0.636 0.638 0.675 0.734 0.570 0.728 0.678 0.623 0.680 0.661 7.46		
91)	n-amyl acetate	0.255 0.253 0.262 0.274 0.216 0.273 0.259 0.247 0.255 7.16	0.255	7.16
92)	styrene	0.936 0.964 0.938 0.912 0.969 0.912 0.928 0.956 0.938 0.877 0.933 2.95		
93)	bromoform	0.207 0.195 0.224 0.244 0.197 0.248 0.215 0.205 0.217 9.31	0.217	9.31
94)	isopropylbenzene	1.429 1.427 1.418 1.398 1.495 1.429 1.455 1.453 1.480 1.496 1.448 2.34		
95)	cis-1,4-dichloro-2-butene	0.106 0.097 0.128 0.148 0.154 0.117 0.125 18.32		
96)	I 1,4-dichlorobenzene-d -----ISTD-----			
97)	4-bromofluorobenzene (s)	0.896 0.903 0.906 0.884 0.924 0.915 0.896 0.908 0.913 0.911 0.906 1.27		
98)	bromobenzene	0.746 0.587 0.762 0.718 0.781 0.752 0.735 0.744 0.785 0.795 0.740 7.97		
99)	1,1,2,2-tetrachloroethane	0.821 0.902 0.808 0.803 0.870 0.796 0.861 0.821 0.815 0.838 0.834 4.09		
100)	trans-1,4-dichloro-2-butene	0.206 0.189 0.233 0.255 0.253 0.227 0.227 11.43	0.227	11.43
101)	1,2,3-trichloropropane	0.265 0.229 0.297 0.256 0.271 0.262 0.258 0.272 0.268 0.264 6.76	0.264	6.76
102)	n-propylbenzene	3.255 3.363 3.298 3.126 3.428 3.308 3.255 3.336 3.405 3.811 3.358 5.38		
103)	2-chlorotoluene	0.672 0.685 0.689 0.647 0.713 0.744 0.684 0.688 0.737 0.755 0.701 4.96		
104)	4-chlorotoluene	0.682 0.758 0.681 0.650 0.703 0.674 0.670 0.674 0.718 0.725 0.694 4.65		
105)	1,3,5-trimethylbenzene	2.336 2.327 2.379 2.229 2.451 2.226 2.332 2.317 2.415 2.636 2.365 5.03		
106)	tert-butylbenzene	2.053 2.009 2.054 1.942 2.166 2.056 2.084 2.049 2.086 2.156 2.066 3.15		
107)	1,2,4-trimethylbenzene	2.332 2.251 2.303 2.246 2.414 2.346 2.333 2.370 2.382 2.385 2.336 2.40		
108)	sec-butylbenzene	2.834 2.628 2.844 2.779 3.047 2.911 2.956 2.906 2.950 3.149 2.900 4.95		
109)	1,3-dichlorobenzene	1.349 1.353 1.334 1.308 1.395 1.283 1.371 1.328 1.308 1.516 1.354 4.83		
110)	p-isopropyltoluene	2.479 2.452 2.486 2.377 2.562 2.480 2.473 2.483 2.460 2.503 2.475 1.85		
111)	1,4-dichlorobenzene	1.330 1.372 1.314 1.287 1.384 1.343 1.367 1.316 1.401 1.346 2.79	1.346	2.79
112)	1,2-dichlorobenzene	1.249 1.143 1.245 1.218 1.307 1.171 1.268 1.242 1.289 1.409 1.254 5.89		
113)	n-butylbenzene			

6.7.1
6

Initial Calibration Summary**Job Number:** JD7277**Sample:** V1A8665-ICC8665**Account:** UTC United Technologies Corporation**Lab FileID:** 1A200990.D**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	1.123	1.006	1.149	1.134	1.241	1.067	1.244	1.142	1.108	1.189	1.140	6.41
114)	1,2-dibromo-3-chloropropane											
	0.211	0.209	0.222	0.250		0.256	0.215	0.198		0.223	9.81	
115)	1,3,5-trichlorobenzene					0.896	0.933	0.903	0.904	1.011	0.884	1.006
						0.927	0.878	0.909	0.925		5.09	
116)	1,2,4-trichlorobenzene					0.720	0.723	0.743	0.844	0.646	0.853	0.738
						0.696	0.745		0.749			
117)	hexachlorobutadiene					0.342	0.327	0.349	0.329	0.363	0.319	0.362
						0.344	0.347		0.343	4.44		
118)	naphthalene					2.159	2.103	2.271	2.491		2.487	2.309
						2.055	2.268		7.73			
119)	1,2,3-trichlorobenzene					0.639	0.615	0.627	0.634	0.729	0.619	0.729
						0.650	0.595		0.649	7.42		
120)	hexachloroethane					0.341	0.362	0.385	0.436		0.444	0.375
						0.321	0.381		12.01			
121)	benzyl chloride					1.182	1.103	1.413	1.611		1.625	1.306
						1.373	1.373		15.82			
122)	2-ethylhexyl acrylate					0.296	0.427	0.513		0.530	0.369	
						0.427	0.427		22.96			
						---- Linear regression	---- Coefficient =	0.9966				
						Response Ratio =	-0.00993	+ 0.53123 *A				
123)	2-methylnaphthalene					0.692	0.914	1.057		1.121	0.780	
						0.913	19.81					
124)	bis(chloromethyl)ether									0.000	-1.00	
125)	ethylenimine									0.000	-1.00	

 (#) = Out of Range ### Number of calibration levels exceeded format ###

M1A8665.M Mon May 11 15:05:51 2020 1A

6.7.1
6

Initial Calibration Verification

Job Number: JD7277

Sample: V1A8665-ICV8665

Account: UTC United Technologies Corporation

Lab FileID: 1A200995.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Evaluate Continuing Calibration Report

```

Data File : C:\msdchem\1\data\V1A8665\1A200995.D          Vial: 14
Acq On   : 9 May 2020  9:39 pm                         Operator: PrashanS
Sample    : ICV8665-50                                     Inst   : MSDTEST1A
Misc     : MS42950,V1A8665,w,,,1                        Multiplr: 1.00
MS Integration Params: rteint.p

Method      : C:\MSDCHEM\1\METHODS\M1A8665.M (RTE Integrator)
Title       : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
Last Update : Mon May 11 09:40:07 2020
Response via : Multiple Level Calibration

Min. RRF      : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30%   Max. Rel. Area : 200%

```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)R.T.	
<hr/>							
1 I	tert Butyl Alcohol-d9	1.000	1.000	0.0	99	0.00	
2	1,4-dioxane	0.129	0.131	-1.6	107	0.00	
3	ethanol	0.125	0.126	-0.8	106	0.00	
4 M	tertiary butyl alcohol	1.387	1.337	3.6	102	0.00	
5 I	pentafluorobenzene	1.000	1.000	0.0	98	0.00	
6	chlorodifluoromethane			-----NA-----			
7	dichlorodifluoromethane	0.513	0.445	13.3	86	0.00	
8	chloromethane	0.396	0.370	6.6	98	0.00	
9	viny1 chloride	0.457	0.438	4.2	97	0.00	
10	bromomethane	0.122	0.157	-28.7	131	0.00	
11	chloroethane	0.251	0.214	14.7	87	0.00	
12	vinyl bromide	0.241	0.269	-11.6	110	0.00	
13	trichlorofluoromethane	0.581	0.572	1.5	95	0.00	
14	ethyl ether	0.207	0.212	-2.4	101	0.00	
15	acrolein	0.106	0.118	-11.3	116	0.00	
16	freon 113	0.268	0.277	-3.4	99	0.00	
17	1,1-dichloroethene	0.326	0.300	8.0	93	0.00	
18	acetone	0.051	0.050	2.0	102	0.00	
19	acetonitrile	0.038	0.045	-18.4	118	0.00	
20	iodomethane	0.178	0.194	-9.0	84	0.00	
21	iso-butyl alcohol	0.030	0.033	-10.0	115	0.00	
22	carbon disulfide	0.878	1.015	-15.6	119	0.00	
23	methylene chloride	0.379	0.374	1.3	101	0.00	
24	methyl acetate	0.092	0.098	-6.5	100	0.00	
25	methyl tert butyl ether	1.186	1.181	0.4	99	0.00	
26	trans-1,2-dichloroethene	0.377	0.371	1.6	98	0.00	
27	hexane	0.600	0.539	10.2	92	0.00	
28	di-isopropyl ether	1.266	1.198	5.4	96	0.00	
29	ethyl tert-butyl ether	1.293	1.196	7.5	94	0.00	
30	2-butanone	0.072	0.076	-5.6	103	0.00	
31 M	1,1-dichloroethane	0.668	0.692	-3.6	102	0.00	
32	chloroprene	0.564	0.611	-8.3	106	0.00	
33	acrylonitrile	0.196	0.219	-11.7	106	0.00	
34	vinyl acetate	0.095	0.092	3.2	98	0.00	
35	ethyl acetate	0.089	0.098	-10.1	98	0.00	
36	2,2-dichloropropane	0.570	0.544	4.6	97	0.00	
37	cis-1,2-dichloroethene	0.434	0.422	2.8	98	0.00	
38	propionitrile	0.086	0.091	-5.8	103	0.00	
39	methyl acrylate	0.085	0.089	-4.7	103	0.00	
40	bromochloromethane	0.204	0.205	-0.5	100	0.00	
41	tetrahydrofuran	0.086	0.085	1.2	98	0.00	

Initial Calibration Verification

Job Number: JD7277

Sample: V1A8665-ICV8665

Account: UTC United Technologies Corporation

Lab FileID: 1A200995.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

42	chloroform	0.759	0.705	7.1	101	0.00	4.43
43 S	dibromofluoromethane (s)	0.413	0.420	-1.7	99	0.00	4.54
44	methacrylonitrile	0.217	0.223	-2.8	101	0.00	4.34
45	1,1,1-trichloroethane	0.622	0.629	-1.1	99	0.00	4.58
46	cyclohexane	0.572	0.576	-0.7	103	0.00	4.64
47	1,1-dichloropropene	0.539	0.541	-0.4	100	0.00	4.68
48	carbon tetrachloride	0.537	0.558	-3.9	100	0.00	4.69
49	isopropyl acetate	0.119	0.117	1.7	94	0.00	4.80
50	tert amyl alcohol	0.031	0.032	-3.2	104	0.00	4.78
51 I	1,4-difluorobenzene	1.000	1.000	0.0	98	0.00	5.11
52 S	1,2-dichloroethane-d4 (s)	0.328	0.320	2.4	91	0.00	4.81
53	tert-amyl methyl ether	0.866	0.792	8.5	91	0.00	4.89
54	2,2,4-trimethylpentane	0.850	0.810	4.7	98	0.00	4.89
55	n-butyl alcohol	0.014	0.016	-14.3	104	0.00	5.16
56 M	benzene	1.098	1.082	1.5	101	0.00	4.84
57	heptane	0.200	0.192	4.0	97	0.00	5.00
58	1,2-dichloroethane	0.393	0.373	5.1	102	0.00	4.86
59	trichloroethene	0.284	0.286	-0.7	101	0.00	5.31
60	ethyl acrylate	0.478	0.479	-0.2	99	0.00	5.32
61	2-nitropropane	0.102	0.124	-21.6	108	0.00	5.86
62	2-chloroethyl vinyl ether	0.188	0.203	-8.0	102	0.00	5.89
63	methyl methacrylate	0.098	0.107	-9.2	104	0.00	5.50
64	1,2-dichloropropane	0.272	0.277	-1.8	101	0.00	5.51
65	methylcyclohexane	0.485	0.483	0.4	98	0.00	5.50
66	dibromomethane	0.169	0.170	-0.6	99	0.00	5.58
67	bromodichloromethane	0.383	0.371	3.1	99	0.00	5.70
68	cis-1,3-dichloropropene	0.424	0.445	-5.0	99	0.00	6.04
69	epichlorohydrin	0.029	0.031	-6.9	100	0.00	5.95
70	4-methyl-2-pentanone	0.155	0.163	-5.2	103	0.00	6.14
71	3-methyl-1-butanol	0.013	0.016	-23.1	109	0.00	6.15
72 I	chlorobenzene-d5	1.000	1.000	0.0	100	0.00	7.53
73 S	toluene-d8 (s)	1.224	1.197	2.2	99	0.00	6.27
74	toluene	0.770	0.745	3.2	101	0.00	6.33
75	trans-1,3-dichloropropene	0.412	0.446	-8.3	105	0.00	6.50
76	ethyl methacrylate	0.449	0.464	-3.3	101	0.00	6.51
77	1,1,2-trichloroethane	0.237	0.233	1.7	102	0.00	6.67
78	2-hexanone	0.173	0.177	-2.3	103	0.00	6.83
79	tetrachloroethene	0.363	0.365	-0.6	104	0.00	6.77
80	1,3-dichloropropane	0.464	0.464	0.0	102	0.00	6.82
81	butyl acetate	0.266	0.267	-0.4	102	0.00	6.91
82	dibromochloromethane	0.302	0.332	-9.9	107	0.00	7.01
83	1,2-dibromoethane	0.362	0.363	-0.3	102	0.00	7.13
84	n-butyl ether	1.287	1.273	1.1	101	0.00	7.59
85	chlorobenzene	0.849	0.842	0.8	103	0.00	7.56
86	1,1,1,2-tetrachloroethane	0.295	0.300	-1.7	103	0.00	7.63
87	ethylbenzene	1.447	1.433	1.0	102	0.00	7.64
88	m,p-xylene	0.566	0.564	0.4	104	0.00	7.75
89	o-xylene	0.568	0.561	1.2	105	0.00	8.11
90	butyl acrylate	0.661	0.687	-3.9	102	0.00	8.02
91	n-amyl acetate	0.255	0.262	-2.7	100	0.00	8.22
92	styrene	0.933	0.960	-2.9	105	0.00	8.13
93	bromoform	0.217	0.250	-15.2	111	0.00	8.30
94	isopropylbenzene	1.448	1.448	0.0	104	0.00	8.45
95	cis-1,4-dichloro-2-butene	0.125	0.145	-16.0	114	0.00	8.50
96 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	99	0.00	9.75
97 S	4-bromofluorobenzene (s)	0.906	0.907	-0.1	102	0.00	8.62
98	bromobenzene	0.740	0.759	-2.6	105	0.00	8.77

6.7.2
6

Initial Calibration Verification

Job Number: JD7277

Sample: V1A8665-ICV8665

Account: UTC United Technologies Corporation

Lab FileID: 1A200995.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99	1,1,2,2-tetrachloroethane	0.834	0.836	-0.2	103	0.00	8.73
100	trans-1,4-dichloro-2-bute	0.227	0.252	-11.0	107	0.00	8.77
101	1,2,3-trichloropropane	0.264	0.267	-1.1	104	0.00	8.79
102	n-propylbenzene	3.358	3.333	0.7	106	0.00	8.85
103	2-chlorotoluene	0.701	0.684	2.4	105	0.00	8.94
104	4-chlorotoluene	0.694	0.693	0.1	106	0.00	9.06
105	1,3,5-trimethylbenzene	2.365	2.345	0.8	104	0.00	9.01
106	tert-butylbenzene	2.066	2.106	-1.9	108	0.00	9.32
107	1,2,4-trimethylbenzene	2.336	2.380	-1.9	105	0.00	9.38
108	sec-butylbenzene	2.900	2.930	-1.0	105	0.00	9.54
109	1,3-dichlorobenzene	1.354	1.366	-0.9	104	0.00	9.67
110	p-isopropyltoluene	2.475	2.521	-1.9	105	0.00	9.69
111	1,4-dichlorobenzene	1.346	1.338	0.6	103	0.00	9.77
112	1,2-dichlorobenzene	1.254	1.250	0.3	102	0.00	10.13
113	n-butylbenzene	1.140	1.178	-3.3	103	0.00	10.09
114	1,2-dibromo-3-chloropropene	0.223	0.228	-2.2	102	0.00	10.90
115	1,3,5-trichlorobenzene	0.925	0.950	-2.7	104	0.00	11.09
116	1,2,4-trichlorobenzene	0.745	0.768	-3.1	102	0.00	11.72
117	hexachlorobutadiene	0.343	0.342	0.3	103	0.00	11.86
118	naphthalene	2.268	2.377	-4.8	104	0.00	11.99
119	1,2,3-trichlorobenzene	0.649	0.675	-4.0	105	0.00	12.21
120	hexachloroethane	0.381	0.407	-6.8	105	0.00	10.40
121	benzyl chloride	1.373	1.154	16.0	81	0.00	9.88
<hr/>							
122	2-ethylhexyl acrylate	10.000	10.002	-0.0	112	0.00	11.89
<hr/>							
123	2-methylnaphthalene	0.913	0.985	-7.9	107	0.00	13.15
124	bis(chloromethyl)ether			-----NA-----			
125	ethylenimine			-----NA-----			
<hr/>							

(#= Out of Range

SPCC's out = 0 CCC's out = 0

1A200990.D M1A8665.M

Mon May 11 15:05:30 2020 1A

6.7.2
6

Initial Calibration Verification

Job Number: JD7277

Sample: V1A8665-ICV8665

Account: UTC United Technologies Corporation

Lab FileID: 1A200996.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V1A8665\1A200996.D Vial: 15
 Acq On : 9 May 2020 10:03 pm Operator: PrashanS
 Sample : ICV8665-50 Inst : MSDTEST1A
 Misc : MS42950,V1A8665,w,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A8665.M (RTE Integrator)
 Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 Last Update : Mon May 11 09:40:07 2020
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert Butyl Alcohol-d9	1.000	1.000	0.0	101	0.00	3.29
2	1,4-dioxane		-----NA-----				
3	ethanol		-----NA-----				
4 M	tertiary butyl alcohol		-----NA-----				
5 I	pentafluorobenzene	1.000	1.000	0.0	102	0.00	4.53
6	chlorodifluoromethane		-----NA-----				
7	dichlorodifluoromethane		-----NA-----				
8	chloromethane		-----NA-----				
9	v vinyl chloride		-----NA-----				
10	bromomethane		-----NA-----				
11	chloroethane		-----NA-----				
12	v vinyl bromide		-----NA-----				
13	trichlorofluoromethane		-----NA-----				
14	ethyl ether		-----NA-----				
15	acrolein		-----NA-----				
16	freon 113		-----NA-----				
17	1,1-dichloroethene		-----NA-----				
18	acetone		-----NA-----				
19	acetonitrile	0.038	0.034	10.5	94	0.00	3.19
20	iodomethane		-----NA-----				
21	iso-butyl alcohol		-----NA-----				
22	carbon disulfide		-----NA-----				
23	methylene chloride		-----NA-----				
24	methyl acetate		-----NA-----				
25	methyl tert butyl ether		-----NA-----				
26	trans-1,2-dichloroethene		-----NA-----				
27	hexane		-----NA-----				
28	di-isopropyl ether		-----NA-----				
29	ethyl tert-butyl ether		-----NA-----				
30	2-butanone		-----NA-----				
31 M	1,1-dichloroethane		-----NA-----				
32	chloroprene		-----NA-----				
33	acrylonitrile	0.196	0.229	-16.8	116	0.00	3.47
34	v vinyl acetate		-----NA-----				
35	ethyl acetate		-----NA-----				
36	2,2-dichloropropane		-----NA-----				
37	cis-1,2-dichloroethene		-----NA-----				
38	propionitrile		-----NA-----				
39	methyl acrylate		-----NA-----				
40	bromochloromethane		-----NA-----				
41	tetrahydrofuran		-----NA-----				

Initial Calibration Verification

Job Number: JD7277

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V1A8665-ICV8665
Lab FileID: 1A200996.D

42	chloroform		-----	-NA-----				
43 S	dibromofluoromethane (s)	0.413	0.416	-0.7	102	0.00	4.54	
44	methacrylonitrile		-----	-NA-----				
45	1,1,1-trichloroethane		-----	-NA-----				
46	cyclohexane		-----	-NA-----				
47	1,1-dichloropropene		-----	-NA-----				
48	carbon tetrachloride		-----	-NA-----				
49	isopropyl acetate		-----	-NA-----				
50	tert amyl alcohol		-----	-NA-----				
51 I	1,4-difluorobenzene	1.000	1.000	0.0	102	0.00	5.11	
52 S	1,2-dichloroethane-d4 (s)	0.328	0.324	1.2	96	0.00	4.80	
53	tert-amyl methyl ether		-----	-NA-----				
54	2,2,4-trimethylpentane		-----	-NA-----				
55	n-butyl alcohol		-----	-NA-----				
56 M	benzene		-----	-NA-----				
57	heptane		-----	-NA-----				
58	1,2-dichloroethane		-----	-NA-----				
59	trichloroethene		-----	-NA-----				
60	ethyl acrylate		-----	-NA-----				
61	2-nitropropane		-----	-NA-----				
62	2-chloroethyl vinyl ether		-----	-NA-----				
63	methyl methacrylate		-----	-NA-----				
64	1,2-dichloropropane		-----	-NA-----				
65	methylcyclohexane		-----	-NA-----				
66	dibromomethane		-----	-NA-----				
67	bromodichloromethane		-----	-NA-----				
68	cis-1,3-dichloropropene		-----	-NA-----				
69	epichlorohydrin		-----	-NA-----				
70	4-methyl-2-pentanone		-----	-NA-----				
71	3-methyl-1-butanol		-----	-NA-----				
72 I	chlorobenzene-d5	1.000	1.000	0.0	99	0.00	7.53	
73 S	toluene-d8 (s)	1.224	1.256	-2.6	102	0.00	6.27	
74	toluene		-----	-NA-----				
75	trans-1,3-dichloropropene		-----	-NA-----				
76	ethyl methacrylate		-----	-NA-----				
77	1,1,2-trichloroethane		-----	-NA-----				
78	2-hexanone		-----	-NA-----				
79	tetrachloroethene	0.363	0.355	2.2	100	0.00	6.77	
80	1,3-dichloropropane		-----	-NA-----				
81	butyl acetate		-----	-NA-----				
82	dibromochloromethane		-----	-NA-----				
83	1,2-dibromoethane		-----	-NA-----				
84	n-butyl ether		-----	-NA-----				
85	chlorobenzene		-----	-NA-----				
86	1,1,1,2-tetrachloroethane		-----	-NA-----				
87	ethylbenzene		-----	-NA-----				
88	m,p-xylene		-----	-NA-----				
89	o-xylene		-----	-NA-----				
90	butyl acrylate		-----	-NA-----				
91	n-amyl acetate		-----	-NA-----				
92	styrene		-----	-NA-----				
93	bromoform		-----	-NA-----				
94	isopropylbenzene		-----	-NA-----				
95	cis-1,4-dichloro-2-butene		-----	-NA-----				
96 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	97	0.00	9.74	
97 S	4-bromofluorobenzene (s)	0.906	0.911	-0.6	100	0.00	8.62	
98	bromobenzene		-----	-NA-----				

Initial Calibration Verification

Job Number: JD7277

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V1A8665-ICV8665
Lab FileID: 1A200996.D

99	1,1,2,2-tetrachloroethane	-----	-NA-----
100	trans-1,4-dichloro-2-butene	-----	-NA-----
101	1,2,3-trichloropropane	-----	-NA-----
102	n-propylbenzene	-----	-NA-----
103	2-chlorotoluene	-----	-NA-----
104	4-chlorotoluene	-----	-NA-----
105	1,3,5-trimethylbenzene	-----	-NA-----
106	tert-butylbenzene	-----	-NA-----
107	1,2,4-trimethylbenzene	-----	-NA-----
108	sec-butylbenzene	-----	-NA-----
109	1,3-dichlorobenzene	-----	-NA-----
110	p-isopropyltoluene	-----	-NA-----
111	1,4-dichlorobenzene	-----	-NA-----
112	1,2-dichlorobenzene	-----	-NA-----
113	n-butylbenzene	-----	-NA-----
114	1,2-dibromo-3-chloropropene	-----	-NA-----
115	1,3,5-trichlorobenzene	-----	-NA-----
116	1,2,4-trichlorobenzene	-----	-NA-----
117	hexachlorobutadiene	-----	-NA-----
118	naphthalene	-----	-NA-----
119	1,2,3-trichlorobenzene	-----	-NA-----
120	hexachloroethane	-----	-NA-----
121	benzyl chloride	-----	-NA-----
122	2-ethylhexyl acrylate	-----	True Calc. % Drift ----- ----- -NA-----
123	2-methylnaphthalene	-----	AvgRF CCRF % Dev ----- ----- -NA-----
124	bis(chloromethyl)ether	-----	----- -NA-----
125	ethylenimine	-----	----- -NA-----

(#= Out of Range

1A200990.D M1A8665.M

SPCC's out = 0 CCC's out = 0

Mon May 11 15:05:35 2020 1A

Initial Calibration Verification

Job Number: JD7277

Sample: V1A8665-ICV8665

Account: UTC United Technologies Corporation

Lab FileID: 1A201000.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Evaluate Continuing Calibration Report

```

Data File : C:\msdchem\1\data\V1A8665\1A201000.D          Vial: 3
Acq On   : 11 May 2020  1:52 pm                         Operator: PrashanS
Sample    : ICV8665-50                                     Inst   : MSDTEST1A
Misc     : MS42950,V1A8665,w,,,1                        Multiplr: 1.00
MS Integration Params: rteint.p

Method      : C:\MSDCHEM\1\METHODS\M1A8665.M (RTE Integrator)
Title       : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
Last Update : Mon May 11 09:40:07 2020
Response via : Multiple Level Calibration

Min. RRF      : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30%   Max. Rel. Area : 200%

```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert Butyl Alcohol-d9	1.000	1.000	0.0	123	0.00	3.29
2	1,4-dioxane		-----NA-----				
3	ethanol		-----NA-----				
4 M	tertiary butyl alcohol		-----NA-----				
5 I	pentafluorobenzene	1.000	1.000	0.0	119	0.00	4.53
6	chlorodifluoromethane	0.385	0.453	-17.7	147	0.00	1.82
7	dichlorodifluoromethane		-----NA-----				
8	chloromethane		-----NA-----				
9	v vinyl chloride		-----NA-----				
10	bromomethane		-----NA-----				
11	chloroethane		-----NA-----				
12	v vinyl bromide		-----NA-----				
13	trichlorofluoromethane		-----NA-----				
14	ethyl ether		-----NA-----				
15	acrolein		-----NA-----				
16	freon 113		-----NA-----				
17	1,1-dichloroethene		-----NA-----				
18	acetone		-----NA-----				
19	acetonitrile		-----NA-----				
20	iodomethane		-----NA-----				
21	iso-butyl alcohol		-----NA-----				
22	carbon disulfide		-----NA-----				
23	methylene chloride		-----NA-----				
24	methyl acetate		-----NA-----				
25	methyl tert butyl ether		-----NA-----				
26	trans-1,2-dichloroethene		-----NA-----				
27	hexane		-----NA-----				
28	di-isopropyl ether		-----NA-----				
29	ethyl tert-butyl ether		-----NA-----				
30	2-butanone		-----NA-----				
31 M	1,1-dichloroethane		-----NA-----				
32	chloroprene		-----NA-----				
33	acrylonitrile		-----NA-----				
34	v vinyl acetate		-----NA-----				
35	ethyl acetate		-----NA-----				
36	2,2-dichloropropane		-----NA-----				
37	cis-1,2-dichloroethene		-----NA-----				
38	propionitrile		-----NA-----				
39	methyl acrylate		-----NA-----				
40	bromochloromethane		-----NA-----				
41	tetrahydrofuran		-----NA-----				

Initial Calibration Verification

Job Number: JD7277

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V1A8665-ICV8665
Lab FileID: 1A201000.D

42	chloroform		-----NA-----					
43 S	dibromofluoromethane (s)	0.413	0.414	-0.2	119	0.00	4.54	
44	methacrylonitrile		-----NA-----					
45	1,1,1-trichloroethane		-----NA-----					
46	cyclohexane		-----NA-----					
47	1,1-dichloropropene		-----NA-----					
48	carbon tetrachloride		-----NA-----					
49	isopropyl acetate		-----NA-----					
50	tert amyl alcohol		-----NA-----					
51 I	1,4-difluorobenzene	1.000	1.000	0.0	116	0.00	5.11	
52 S	1,2-dichloroethane-d4 (s)	0.328	0.327	0.3	110	0.00	4.80	
53	tert-amyl methyl ether		-----NA-----					
54	2,2,4-trimethylpentane		-----NA-----					
55	n-butyl alcohol		-----NA-----					
56 M	benzene		-----NA-----					
57	heptane		-----NA-----					
58	1,2-dichloroethane		-----NA-----					
59	trichloroethene		-----NA-----					
60	ethyl acrylate		-----NA-----					
61	2-nitropropane		-----NA-----					
62	2-chloroethyl vinyl ether		-----NA-----					
63	methyl methacrylate		-----NA-----					
64	1,2-dichloropropane		-----NA-----					
65	methylcyclohexane		-----NA-----					
66	dibromomethane		-----NA-----					
67	bromodichloromethane		-----NA-----					
68	cis-1,3-dichloropropene		-----NA-----					
69	epichlorohydrin		-----NA-----					
70	4-methyl-2-pentanone		-----NA-----					
71	3-methyl-1-butanol		-----NA-----					
72 I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	7.54	
73 S	toluene-d8 (s)	1.224	1.284	-4.9	116	0.00	6.27	
74	toluene		-----NA-----					
75	trans-1,3-dichloropropene		-----NA-----					
76	ethyl methacrylate		-----NA-----					
77	1,1,2-trichloroethane		-----NA-----					
78	2-hexanone		-----NA-----					
79	tetrachloroethene		-----NA-----					
80	1,3-dichloropropane		-----NA-----					
81	butyl acetate		-----NA-----					
82	dibromochloromethane		-----NA-----					
83	1,2-dibromoethane		-----NA-----					
84	n-butyl ether		-----NA-----					
85	chlorobenzene		-----NA-----					
86	1,1,1,2-tetrachloroethane		-----NA-----					
87	ethylbenzene		-----NA-----					
88	m,p-xylene		-----NA-----					
89	o-xylene		-----NA-----					
90	butyl acrylate		-----NA-----					
91	n-amyl acetate		-----NA-----					
92	styrene		-----NA-----					
93	bromoform		-----NA-----					
94	isopropylbenzene		-----NA-----					
95	cis-1,4-dichloro-2-butene		-----NA-----					
96 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	9.74	
97 S	4-bromofluorobenzene (s)	0.906	0.900	0.7	110	0.00	8.62	
98	bromobenzene		-----NA-----					

6.7.4

Initial Calibration Verification**Job Number:** JD7277**Account:** UTC United Technologies Corporation**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL**Sample:** V1A8665-ICV8665
Lab FileID: 1A201000.D

99	1,1,2,2-tetrachloroethane	-----NA-----
100	trans-1,4-dichloro-2-butene	-----NA-----
101	1,2,3-trichloropropane	-----NA-----
102	n-propylbenzene	-----NA-----
103	2-chlorotoluene	-----NA-----
104	4-chlorotoluene	-----NA-----
105	1,3,5-trimethylbenzene	-----NA-----
106	tert-butylbenzene	-----NA-----
107	1,2,4-trimethylbenzene	-----NA-----
108	sec-butylbenzene	-----NA-----
109	1,3-dichlorobenzene	-----NA-----
110	p-isopropyltoluene	-----NA-----
111	1,4-dichlorobenzene	-----NA-----
112	1,2-dichlorobenzene	-----NA-----
113	n-butylbenzene	-----NA-----
114	1,2-dibromo-3-chloropropene	-----NA-----
115	1,3,5-trichlorobenzene	-----NA-----
116	1,2,4-trichlorobenzene	-----NA-----
117	hexachlorobutadiene	-----NA-----
118	naphthalene	-----NA-----
119	1,2,3-trichlorobenzene	-----NA-----
120	hexachloroethane	-----NA-----
121	benzyl chloride	-----NA-----
----- True Calc. % Drift -----		
122	2-ethylhexyl acrylate	-----NA-----
----- AvgRF CCRF % Dev -----		
123	2-methylnaphthalene	-----NA-----
124	bis(chloromethyl)ether	-----NA-----
125	ethylenimine	-----NA-----

(#) = Out of Range

1A200990.D M1A8665.M

SPCC's out = 0 CCC's out = 0

Mon May 11 15:05:38 2020 1A

6.7.4
6

Continuing Calibration Summary

Job Number: JD7277

Sample: V1A8674-CC8665

Account: UTC United Technologies Corporation

Lab FileID: 1A201126.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...20\vla8674\1a201126.d Vial: 2
 Acq On : 18 May 2020 6:00 pm Operator: brittank
 Sample : cc8665-50 Inst : MSDTEST1A
 Misc : MS43164,V1A8674,w,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A8665.M (RTE Integrator)
 Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 Last Update : Mon May 11 09:40:07 2020
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)R.T.
<hr/>						
1 I	tert Butyl Alcohol-d9	1.000	1.000	0.0	100	0.00
2	1,4-dioxane	0.129	0.111	14.0	91	0.00
3	ethanol	0.125	0.119	4.8	100	0.00
4 M	tertiary butyl alcohol	1.387	1.246	10.2	95	0.00
5 I	pentafluorobenzene	1.000	1.000	0.0	80	0.00
6	chlorodifluoromethane			-----NA-----		
7	dichlorodifluoromethane	0.513	0.549	-7.0	88	0.00
8	chloromethane	0.396	0.461	-16.4	100	0.00
9	vinyl chloride	0.457	0.510	-11.6	93	0.00
10	bromomethane	0.122	0.131	-7.4	89	0.00
11	chloroethane	0.251	0.273	-8.8	91	0.00
12	vinyl bromide	0.241	0.247	-2.5	83	0.00
13	trichlorofluoromethane	0.581	0.617	-6.2	84	0.00
14	ethyl ether	0.207	0.221	-6.8	87	0.00
15	acrolein	0.106	0.129	-21.7#	105	0.00
16	freon 113	0.268	0.256	4.5	76	0.00
17	1,1-dichloroethene	0.326	0.327	-0.3	83	0.00
18	acetone	0.051	0.056	-9.8	95	0.00
19	acetonitrile	0.038	0.045	-18.4	98	0.00
20	iodomethane	0.178	0.182	-2.2	64	0.00
21	iso-butyl alcohol	0.030	0.037	-23.3#	106	0.00
22	carbon disulfide	0.878	0.839	4.4	81	0.00
23	methylene chloride	0.379	0.407	-7.4	90	0.00
24	methyl acetate	0.092	0.106	-15.2	89	0.00
25	methyl tert butyl ether	1.186	1.281	-8.0	88	0.00
26	trans-1,2-dichloroethene	0.377	0.378	-0.3	82	0.00
27	hexane	0.600	0.598	0.3	84	0.00
28	di-isopropyl ether	1.266	1.388	-9.6	92	0.00
29	ethyl tert-butyl ether	1.293	1.398	-8.1	90	0.00
30	2-butanone	0.072	0.078	-8.3	86	0.00
31 M	1,1-dichloroethane	0.668	0.728	-9.0	88	0.00
32	chloroprene	0.564	0.594	-5.3	85	0.00
33	acrylonitrile	0.196	0.231	-17.9	92	0.00
34	vinyl acetate	0.095	0.112	-17.9	97	0.00
35	ethyl acetate	0.089	0.098	-10.1	80	0.00
36	2,2-dichloropropane	0.570	0.639	-12.1	94	0.00
37	cis-1,2-dichloroethene	0.434	0.440	-1.4	84	0.00
38	propionitrile	0.086	0.099	-15.1	93	0.00
39	methyl acrylate	0.085	0.095	-11.8	91	0.00
40	bromochloromethane	0.204	0.211	-3.4	85	0.00
41	tetrahydrofuran	0.086	0.094	-9.3	90	0.00

Continuing Calibration Summary

Job Number: JD7277

Sample: V1A8674-CC8665

Account: UTC United Technologies Corporation

Lab FileID: 1A201126.D

Project: ENSRLW: UTAS Plants 1/2 Facility, Rockford, IL

42	chloroform	0.759	0.730	3.8	86	0.00	4.43
43 S	dibromofluoromethane (s)	0.413	0.449	-8.7	87	0.00	4.54
44	methacrylonitrile	0.217	0.242	-11.5	90	0.00	4.34
45	1,1,1-trichloroethane	0.622	0.636	-2.3	82	0.00	4.58
46	cyclohexane	0.572	0.586	-2.4	86	0.00	4.64
47	1,1-dichloropropene	0.539	0.531	1.5	81	0.00	4.68
48	carbon tetrachloride	0.537	0.534	0.6	79	0.00	4.69
49	isopropyl acetate	0.119	0.130	-9.2	86	0.00	4.80
50	tert amyl alcohol	0.031	0.032	-3.2	85	0.00	4.77
51 I	1,4-difluorobenzene	1.000	1.000	0.0	85	0.00	5.11
52 S	1,2-dichloroethane-d4 (s)	0.328	0.330	-0.6	81	0.00	4.80
53	tert-amyl methyl ether	0.866	0.872	-0.7	88	0.00	4.89
54	2,2,4-trimethylpentane	0.850	0.808	4.9	85	0.00	4.90
55	n-butyl alcohol	0.014	0.018	-28.6#	100	0.00	5.16
56 M	benzene	1.098	1.047	4.6	85	0.00	4.84
57	heptane	0.200	0.191	4.5	84	0.00	5.00
58	1,2-dichloroethane	0.393	0.371	5.6	88	0.00	4.86
59	trichloroethene	0.284	0.268	5.6	82	0.00	5.31
60	ethyl acrylate	0.478	0.504	-5.4	91	0.00	5.32
61	2-nitropropane	0.102	0.122	-19.6	92	0.00	5.86
62	2-chloroethyl vinyl ether	0.188	0.189	-0.5	82	0.00	5.89
63	methyl methacrylate	0.098	0.101	-3.1	85	0.00	5.50
64	1,2-dichloropropane	0.272	0.280	-2.9	88	0.00	5.51
65	methylcyclohexane	0.485	0.437	9.9	78	0.00	5.50
66	dibromomethane	0.169	0.175	-3.6	88	0.00	5.58
67	bromodichloromethane	0.383	0.388	-1.3	91	0.00	5.70
68	cis-1,3-dichloropropene	0.424	0.465	-9.7	90	0.00	6.04
69	epichlorohydrin	0.029	0.032	-10.3	92	0.00	5.95
70	4-methyl-2-pentanone	0.155	0.165	-6.5	91	0.00	6.14
71	3-methyl-1-butanol	0.013	0.016	-23.1#	98	0.00	6.16
72 I	chlorobenzene-d5	1.000	1.000	0.0	85	0.00	7.54
73 S	toluene-d8 (s)	1.224	1.220	0.3	85	0.00	6.27
74	toluene	0.770	0.714	7.3	82	0.00	6.33
75	trans-1,3-dichloropropene	0.412	0.465	-12.9	93	0.00	6.50
76	ethyl methacrylate	0.449	0.476	-6.0	88	0.00	6.51
77	1,1,2-trichloroethane	0.237	0.235	0.8	87	0.00	6.67
78	2-hexanone	0.173	0.185	-6.9	91	0.00	6.83
79	tetrachloroethene	0.363	0.321	11.6	77	0.00	6.77
80	1,3-dichloropropane	0.464	0.479	-3.2	90	0.00	6.82
81	butyl acetate	0.266	0.286	-7.5	93	0.00	6.91
82	dibromochloromethane	0.302	0.322	-6.6	88	0.00	7.01
83	1,2-dibromoethane	0.362	0.360	0.6	86	0.00	7.13
84	n-butyl ether	1.287	1.305	-1.4	88	0.00	7.60
85	chlorobenzene	0.849	0.794	6.5	82	0.00	7.56
86	1,1,1,2-tetrachloroethane	0.295	0.295	0.0	86	0.00	7.63
87	ethylbenzene	1.447	1.380	4.6	84	0.00	7.64
88	m,p-xylene	0.566	0.523	7.6	82	0.00	7.75
89	o-xylene	0.568	0.517	9.0	82	0.00	8.11
90	butyl acrylate	0.661	0.742	-12.3	93	0.00	8.02
91	n-amyl acetate	0.255	0.274	-7.5	89	0.00	8.23
92	styrene	0.933	0.899	3.6	84	0.00	8.13
93	bromoform	0.217	0.243	-12.0	92	0.00	8.31
94	isopropylbenzene	1.448	1.339	7.5	81	0.00	8.45
95	cis-1,4-dichloro-2-butene	0.125	0.150	-20.0	100	0.00	8.50
96 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	81	0.00	9.75
97 S	4-bromofluorobenzene (s)	0.906	0.962	-6.2	88	0.00	8.62
98	bromobenzene	0.740	0.712	3.8	81	0.00	8.77

6.7.5
6

Continuing Calibration Summary

Job Number: JD7277

Sample: V1A8674-CC8665

Account: UTC United Technologies Corporation

Lab FileID: 1A201126.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99	1,1,2,2-tetrachloroethane	0.834	0.870	-4.3	88	0.00	8.73
100	trans-1,4-dichloro-2-bute	0.227	0.266	-17.2	93	0.00	8.77
101	1,2,3-trichloropropane	0.264	0.270	-2.3	86	0.00	8.80
102	n-propylbenzene	3.358	3.222	4.1	84	0.00	8.85
103	2-chlorotoluene	0.701	0.675	3.7	85	0.00	8.94
104	4-chlorotoluene	0.694	0.660	4.9	82	0.00	9.06
105	1,3,5-trimethylbenzene	2.365	2.271	4.0	83	0.00	9.02
106	tert-butylbenzene	2.066	1.946	5.8	81	0.00	9.33
107	1,2,4-trimethylbenzene	2.336	2.276	2.6	82	0.00	9.38
108	sec-butylbenzene	2.900	2.786	3.9	81	0.00	9.54
109	1,3-dichlorobenzene	1.354	1.288	4.9	80	0.00	9.67
110	p-isopropyltoluene	2.475	2.371	4.2	81	0.00	9.69
111	1,4-dichlorobenzene	1.346	1.265	6.0	80	0.00	9.77
112	1,2-dichlorobenzene	1.254	1.194	4.8	80	0.00	10.13
113	n-butylbenzene	1.140	1.149	-0.8	82	0.00	10.09
114	1,2-dibromo-3-chloropropene	0.223	0.243	-9.0	89	0.00	10.90
115	1,3,5-trichlorobenzene	0.925	0.908	1.8	82	0.00	11.09
116	1,2,4-trichlorobenzene	0.745	0.762	-2.3	83	0.00	11.72
117	hexachlorobutadiene	0.343	0.336	2.0	83	0.00	11.86
118	naphthalene	2.268	2.330	-2.7	83	0.00	11.99
119	1,2,3-trichlorobenzene	0.649	0.654	-0.8	84	0.00	12.21
120	hexachloroethane	0.381	0.424	-11.3	90	0.00	10.40
121	benzyl chloride	1.373	1.812	-32.0#	104	0.00	9.88

	True	Calc.	% Drift	
122	2-ethylhexyl acrylate	10.000	10.113	-1.1 93 0.00 11.88

	AvgRF	CCRF	% Dev	
123	2-methylnaphthalene	0.913	0.956	-4.7 85 0.00 13.15
124	bis(chloromethyl)ether			-NA-
125	ethylenimine			-NA-

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

1A200990.D M1A8665.M

Tue May 19 17:45:17 2020

6.7.5
6

Run Sequence Report

Job Number: JD7277

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Run ID: V1A8665	Method: SW846 8260C	Instrument ID: GCMS1A		
Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V1A8665-BFB	1A200982.D	05/09/20 16:10	n/a	BFB Tune
V1A8665-IC8665	1A200983.D	05/09/20 16:42	n/a	Initial cal 0.2
V1A8665-IC8665	1A200984.D	05/09/20 17:07	n/a	Initial cal 0.5
V1A8665-IC8665	1A200985.D	05/09/20 17:31	n/a	Initial cal 1
V1A8665-IC8665	1A200986.D	05/09/20 17:56	n/a	Initial cal 2
V1A8665-IC8665	1A200987.D	05/09/20 18:21	n/a	Initial cal 4
V1A8665-IC8665	1A200988.D	05/09/20 18:46	n/a	Initial cal 8
V1A8665-IC8665	1A200989.D	05/09/20 19:10	n/a	Initial cal 20
V1A8665-ICC8665	1A200990.D	05/09/20 19:35	n/a	Initial cal 50
V1A8665-IC8665	1A200991.D	05/09/20 20:00	n/a	Initial cal 100
V1A8665-IC8665	1A200992.D	05/09/20 20:25	n/a	Initial cal 200
V1A8665-ICV8665	1A200995.D	05/09/20 21:39	n/a	Initial cal verification 50
V1A8665-ICV8665	1A200996.D	05/09/20 22:03	n/a	Initial cal verification 50
V1A8665-BFB2	1A200999.D	05/11/20 12:59	n/a	BFB Tune
V1A8665-ICV8665	1A201000.D	05/11/20 13:52	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD7277

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Run ID: V1A8674	Method: SW846 8260C	Instrument ID: GCMS1A		
Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V1A8674-BFB	1A201126.D	05/18/20 18:00	n/a	BFB Tune
V1A8674-CC8665	1A201126.D	05/18/20 18:00	n/a	Continuing cal 50
V1A8674-BS	1A201127.D	05/18/20 18:38	n/a	Blank Spike
V1A8674-MB	1A201129.D	05/18/20 19:27	n/a	Method Blank
JD7277-13	1A201130.D	05/18/20 19:52	n/a	HSSEN-GMZ02-051320
JD7277-13MS	1A201131.D	05/18/20 20:17	n/a	Matrix Spike
JD7277-13MSD	1A201132.D	05/18/20 20:41	n/a	Matrix Spike Duplicate
ZZZZZZ	1A201133.D	05/18/20 21:06	n/a	(unrelated sample)
JD7277-2	1A201134.D	05/18/20 21:31	n/a	HSSEN-FBLK02-051220
JD7277-16	1A201135.D	05/18/20 21:56	n/a	HSSEN-FBLK01-051320
JD7277-19	1A201136.D	05/18/20 22:20	n/a	HSSEN-TBLK01-051220
JD7277-1	1A201137.D	05/18/20 22:45	n/a	HSSEN-SMW08-051220
JD7277-3	1A201138.D	05/18/20 23:10	n/a	HSSEN-SMW02-051220
JD7277-4	1A201139.D	05/18/20 23:34	n/a	HSSEN-MW203-051220
JD7277-5	1A201140.D	05/18/20 23:59	n/a	HSSEN-GMZ01-051220
JD7277-6	1A201141.D	05/19/20 00:24	n/a	HSSEN-MW07FGA-051220
JD7277-7	1A201142.D	05/19/20 00:49	n/a	HSSEN-SMW01-051220
JD7277-8	1A201143.D	05/19/20 01:14	n/a	HSSEN-SMW19-051220
JD7277-9	1A201144.D	05/19/20 01:38	n/a	HSSEN-GMZ04-051220
JD7277-10	1A201145.D	05/19/20 02:03	n/a	HSSEN-SMW21-051220
JD7277-11	1A201146.D	05/19/20 02:28	n/a	HSSEN-SMW20-051320
JD7277-12	1A201147.D	05/19/20 02:52	n/a	HSSEN-GMZ03-051320
JD7277-14	1A201148.D	05/19/20 03:17	n/a	HSSEN-PMW01-051320
JD7277-15	1A201149.D	05/19/20 03:42	n/a	HSSEN-PMW02-051320
JD7277-17	1A201150.D	05/19/20 04:07	n/a	HSSEN-DUP01-051320
JD7277-18	1A201151.D	05/19/20 04:31	n/a	HSSEN-SMW04-051420

MS Volatiles**Raw Data**

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201137.d
 Acq On : 18 May 2020 10:45 pm
 Operator : brittank
 Sample : jd7277-1 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:32:15 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.291	65	138264	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	186109	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	280706	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	266274	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.744	152	131407	50.00	ug/L	0.00

System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	83819	54.51	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 109.02%		
52) 1,2-dichloroethane-d4 (s)	4.802	65	96541	52.39	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 104.78%		
73) toluene-d8 (s)	6.272	98	326523	50.08	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 100.16%		
97) 4-bromofluorobenzene (s)	8.621	95	122576	51.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 103.00%		

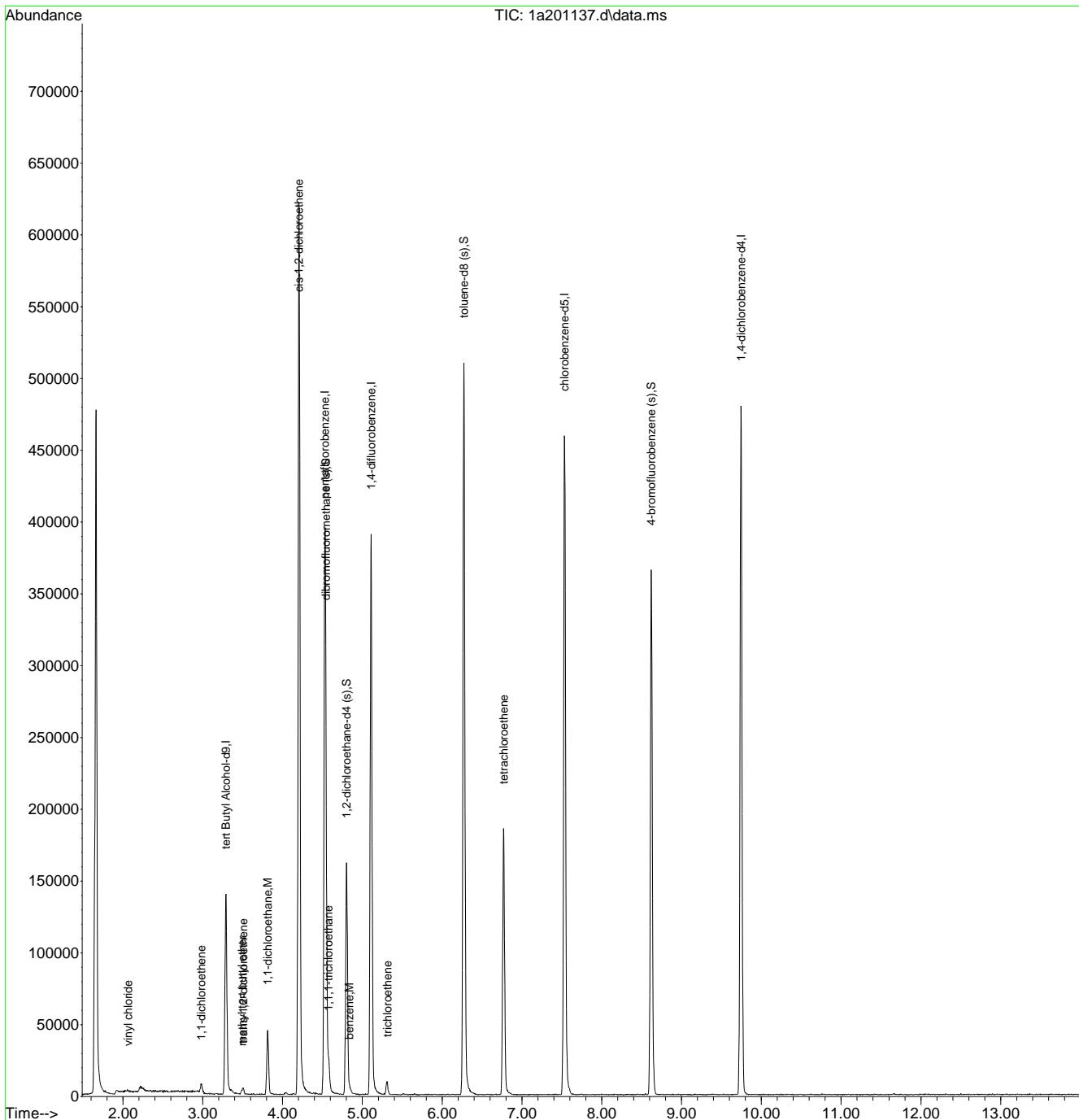
Target Compounds						Qvalue
9) vinyl chloride	2.062	62	500	0.29	ug/L	92
17) 1,1-dichloroethene	2.979	96	1615	1.33	ug/L	98
25) methyl tert butyl ether	3.493	73	1933	0.44	ug/L	91
26) trans-1,2-dichloroethene	3.509	96	1097	0.78	ug/L	83
31) 1,1-dichloroethane	3.814	63	35982	14.48	ug/L	98
37) cis-1,2-dichloroethene	4.205	96	233120	144.31	ug/L	94
45) 1,1,1-trichloroethane	4.574	97	8828	3.81	ug/L	86
56) benzene	4.837	78	1540	0.25	ug/L	95
59) trichloroethene	5.312	95	2491	1.56	ug/L	90
79) tetrachloroethene	6.769	166	55100	28.49	ug/L	94

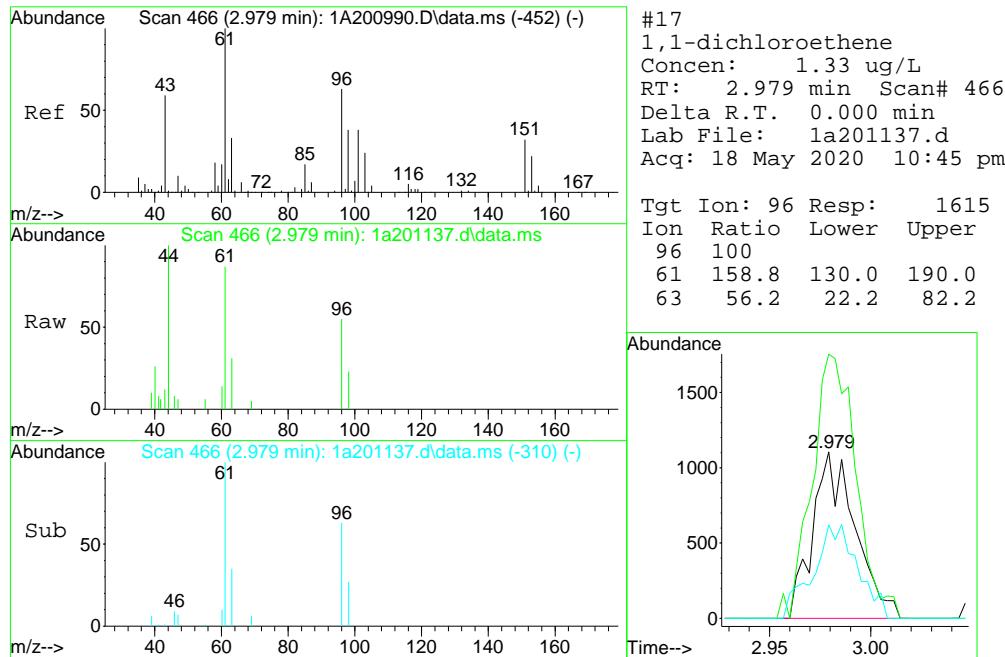
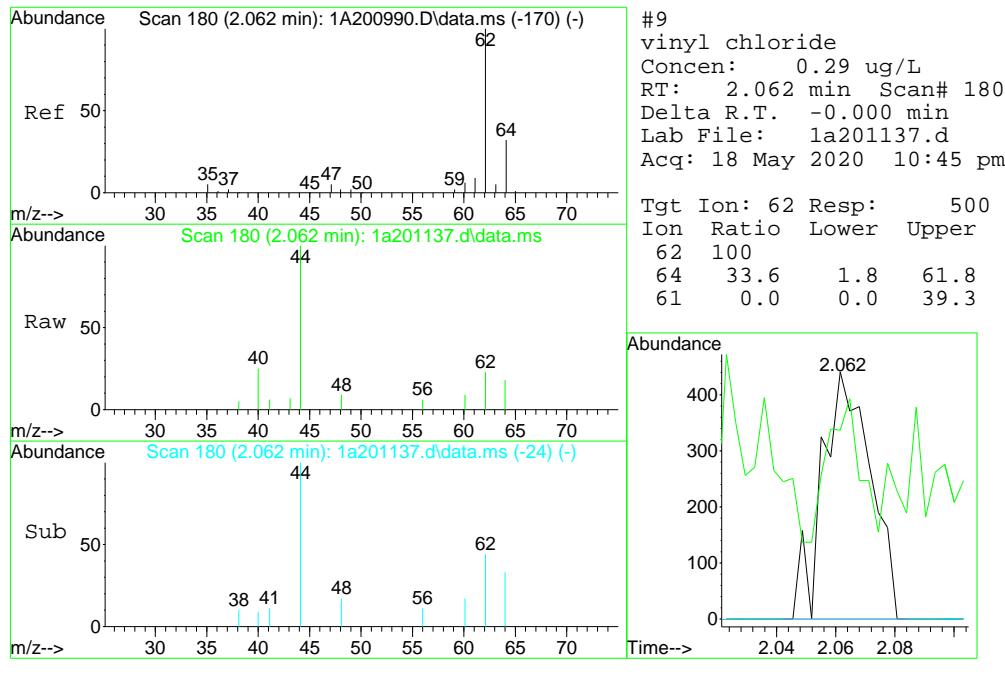
(#) = qualifier out of range (m) = manual integration (+) = signals summed

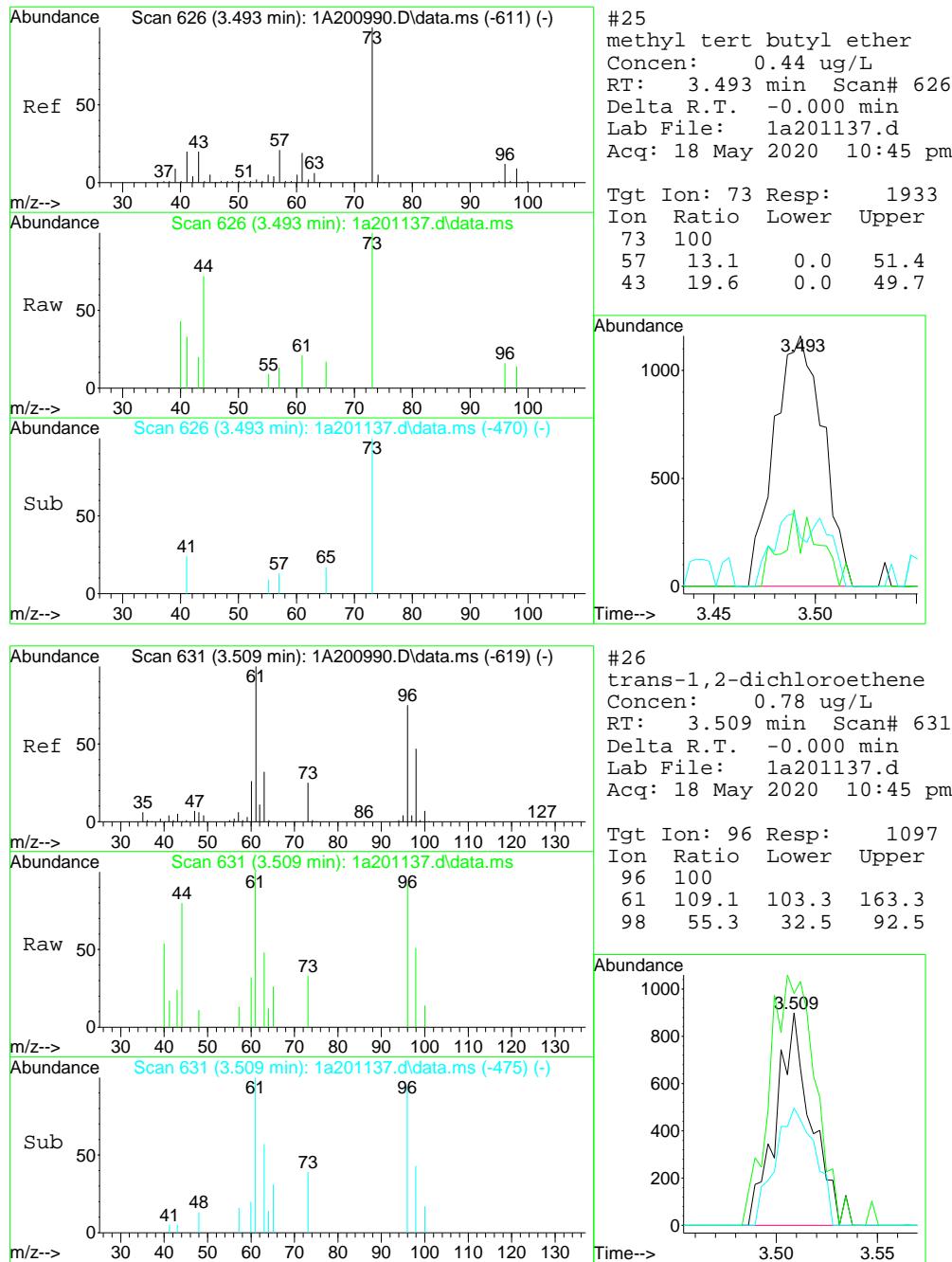
Quantitation Report (QT Reviewed)

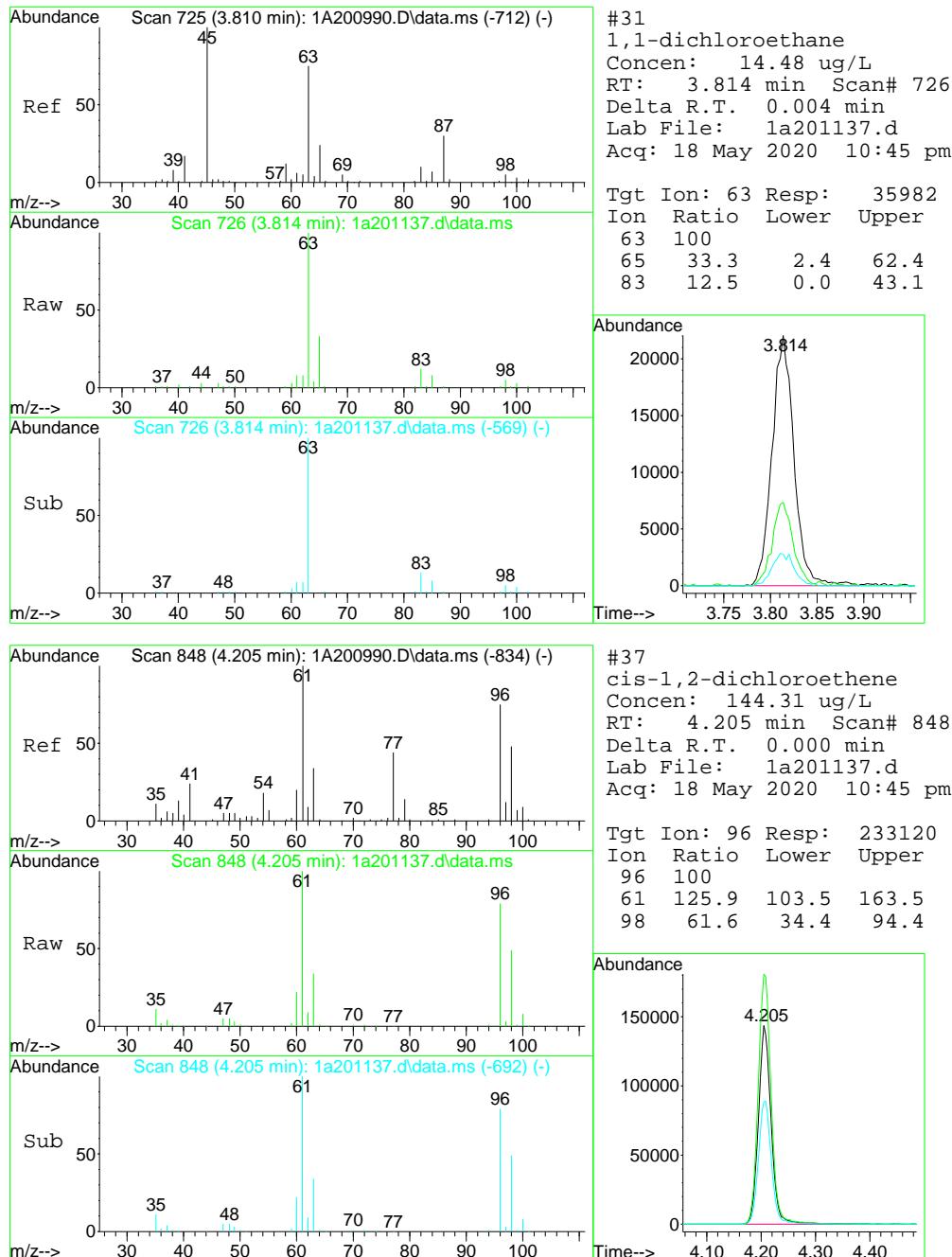
Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201137.d
 Acq On : 18 May 2020 10:45 pm
 Operator : brittank
 Sample : jd7277-1
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 13 Sample Multiplier: 1
 Inst : MSDTEST1A

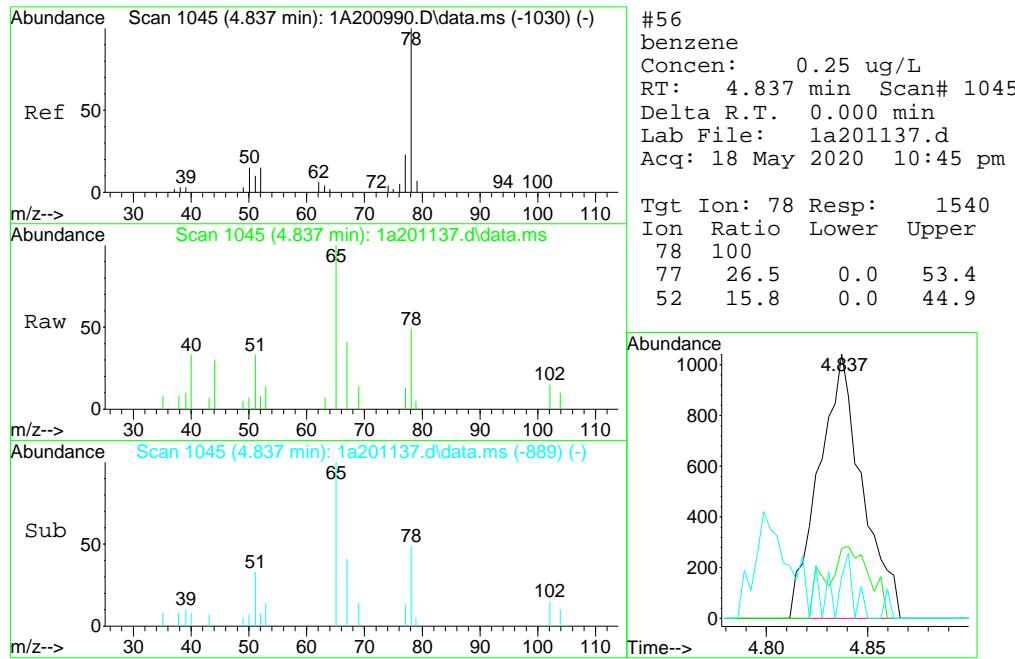
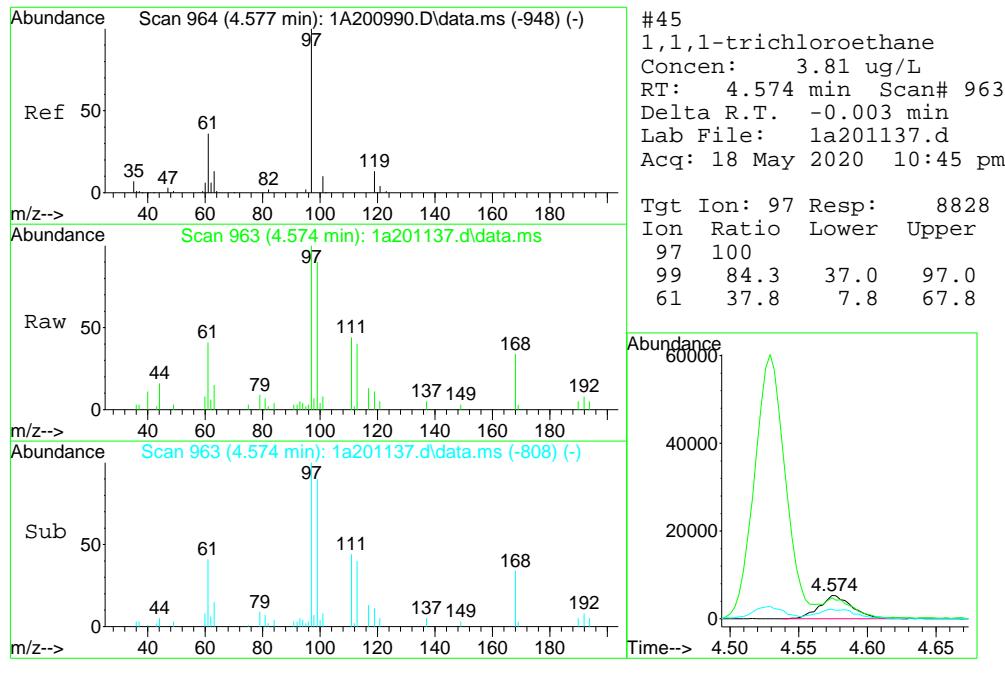
Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:32:15 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

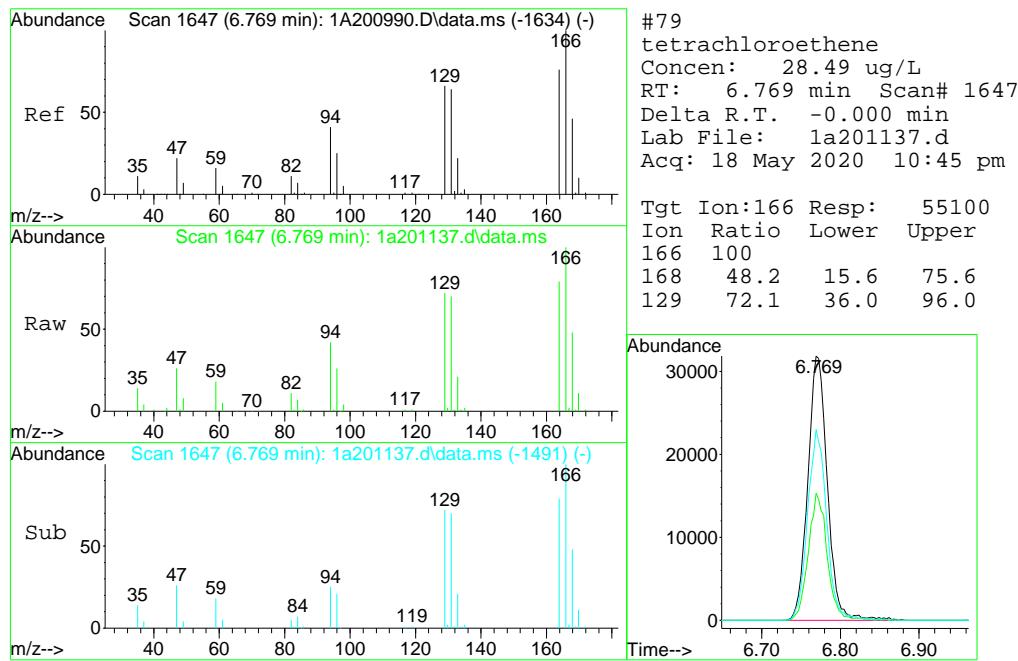
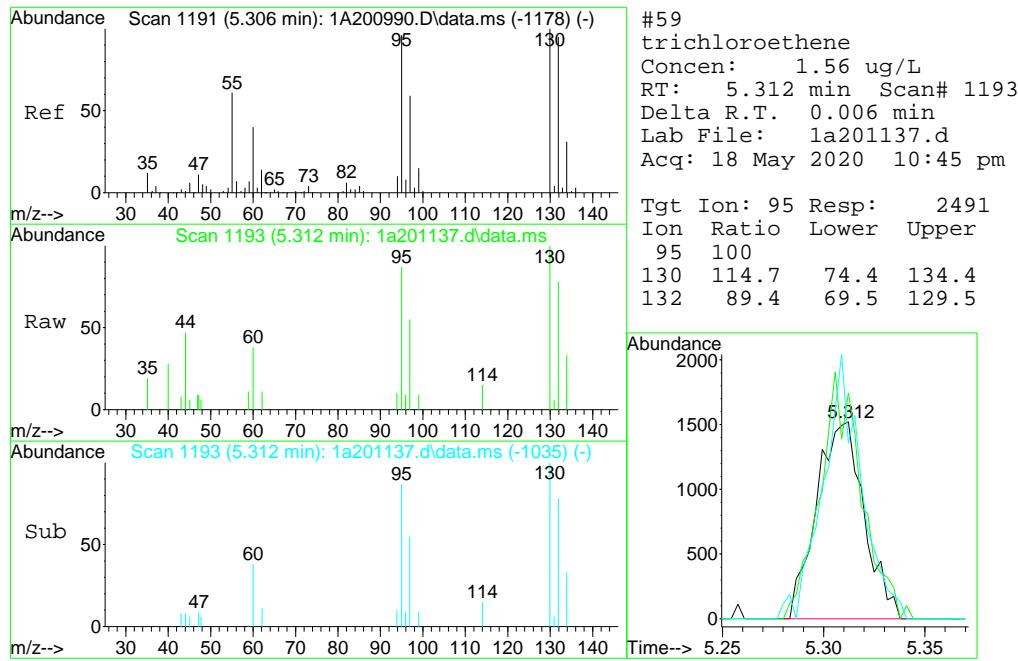












Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201134.d
 Acq On : 18 May 2020 9:31 pm
 Operator : brittank
 Sample : jd7277-2 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 10 Sample Multiplier: 1

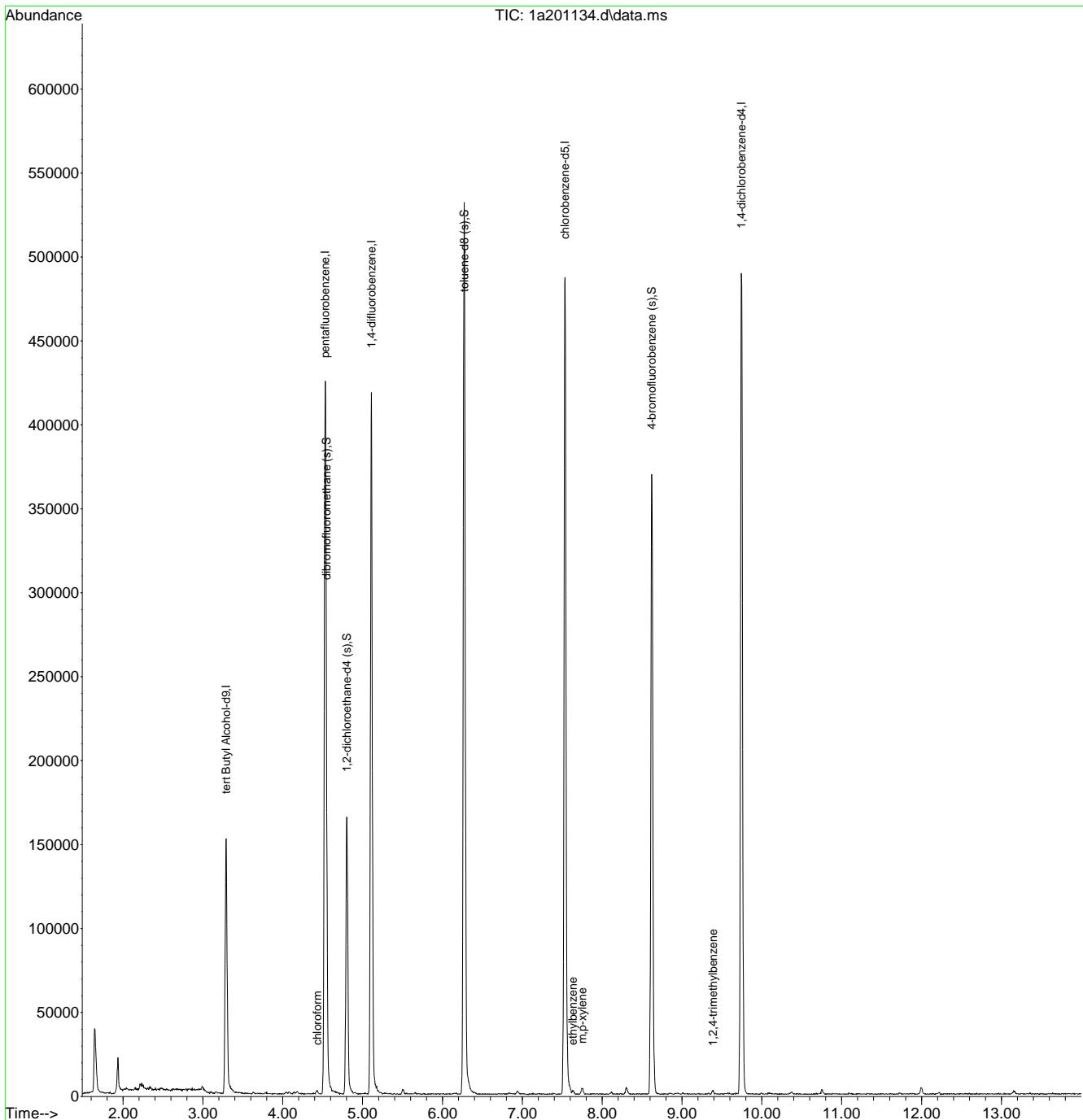
Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:27:34 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

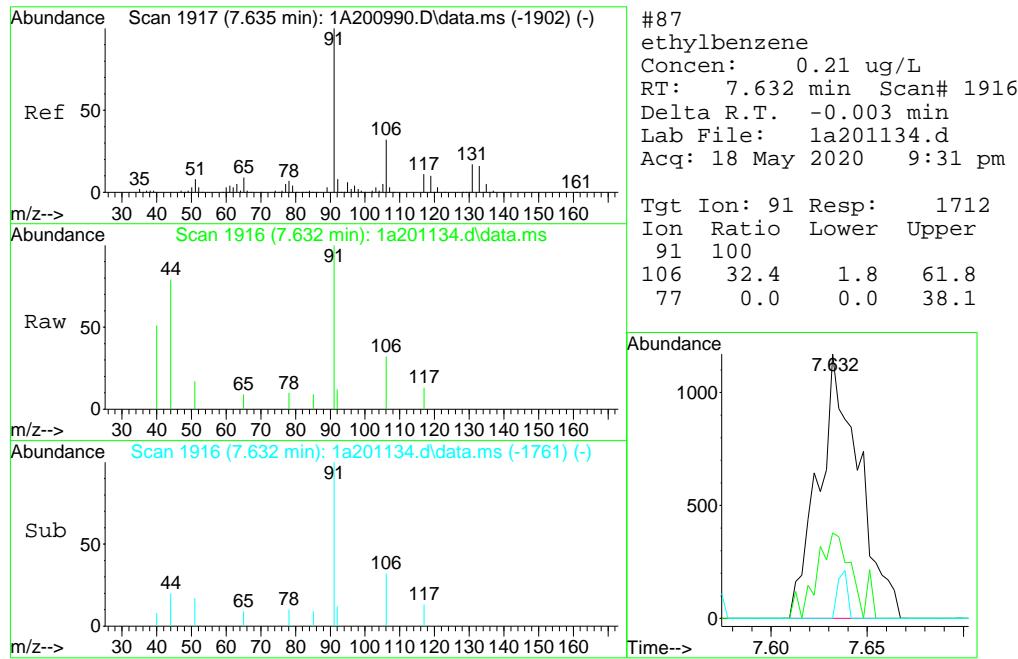
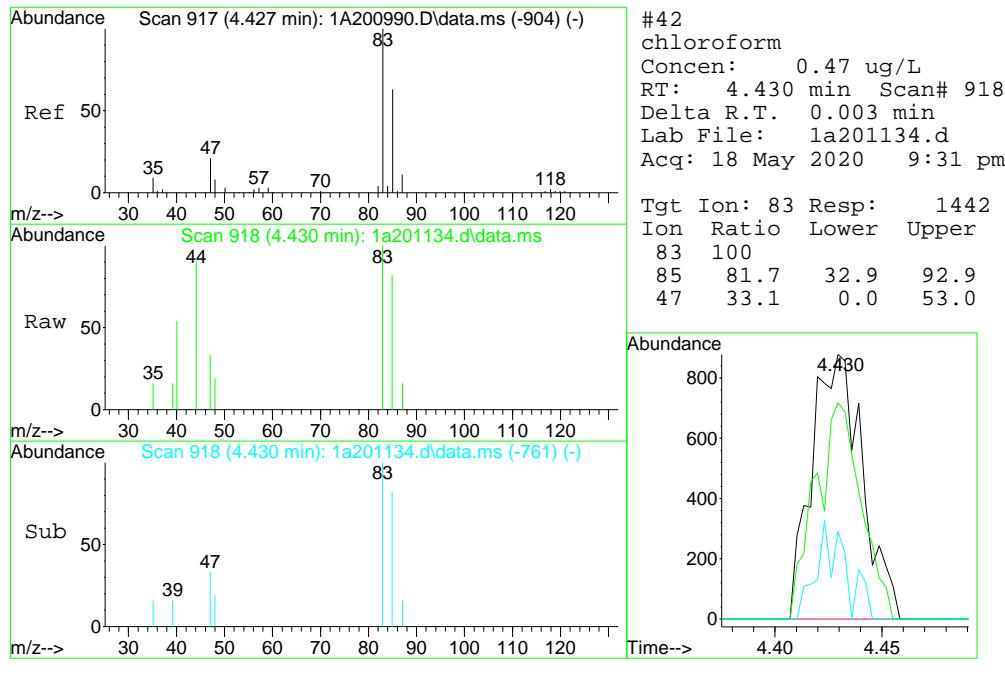
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	153496	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	201484	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	300710	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	278899	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.743	152	136169	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.545	113	88818	53.35	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	106.70%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	103135	52.24	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	104.48%	
73) toluene-d8 (s)	6.271	98	350016	51.25	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	102.50%	
97) 4-bromofluorobenzene (s)	8.620	95	127723	51.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	103.58%	
<hr/>						
Target Compounds						
42) chloroform	4.430	83	1442	0.47	ug/L	77
87) ethylbenzene	7.632	91	1712	0.21	ug/L	95
88) m,p-xylene	7.748	106	1356	0.43	ug/L	# 74
107) 1,2,4-trimethylbenzene	9.384	105	1650	0.26	ug/L	93
<hr/>						

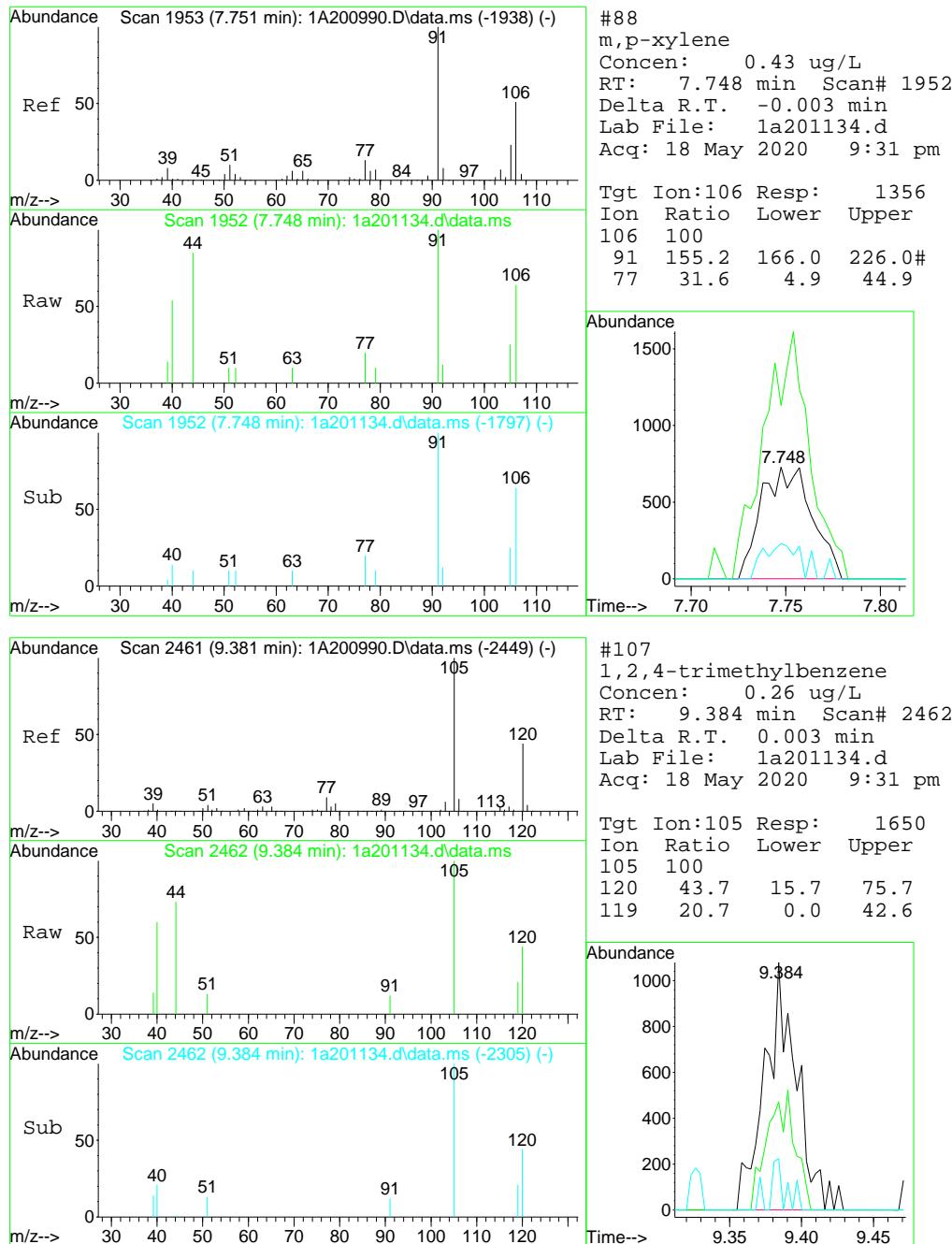
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201134.d
 Acq On : 18 May 2020 9:31 pm
 Operator : brittank
 Sample : jd7277-2
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 10 Sample Multiplier: 1
 Inst : MSDTEST1A
 Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:27:34 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration







Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201138.d
 Acq On : 18 May 2020 11:10 pm
 Operator : brittank
 Sample : jd7277-3 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 14 Sample Multiplier: 1

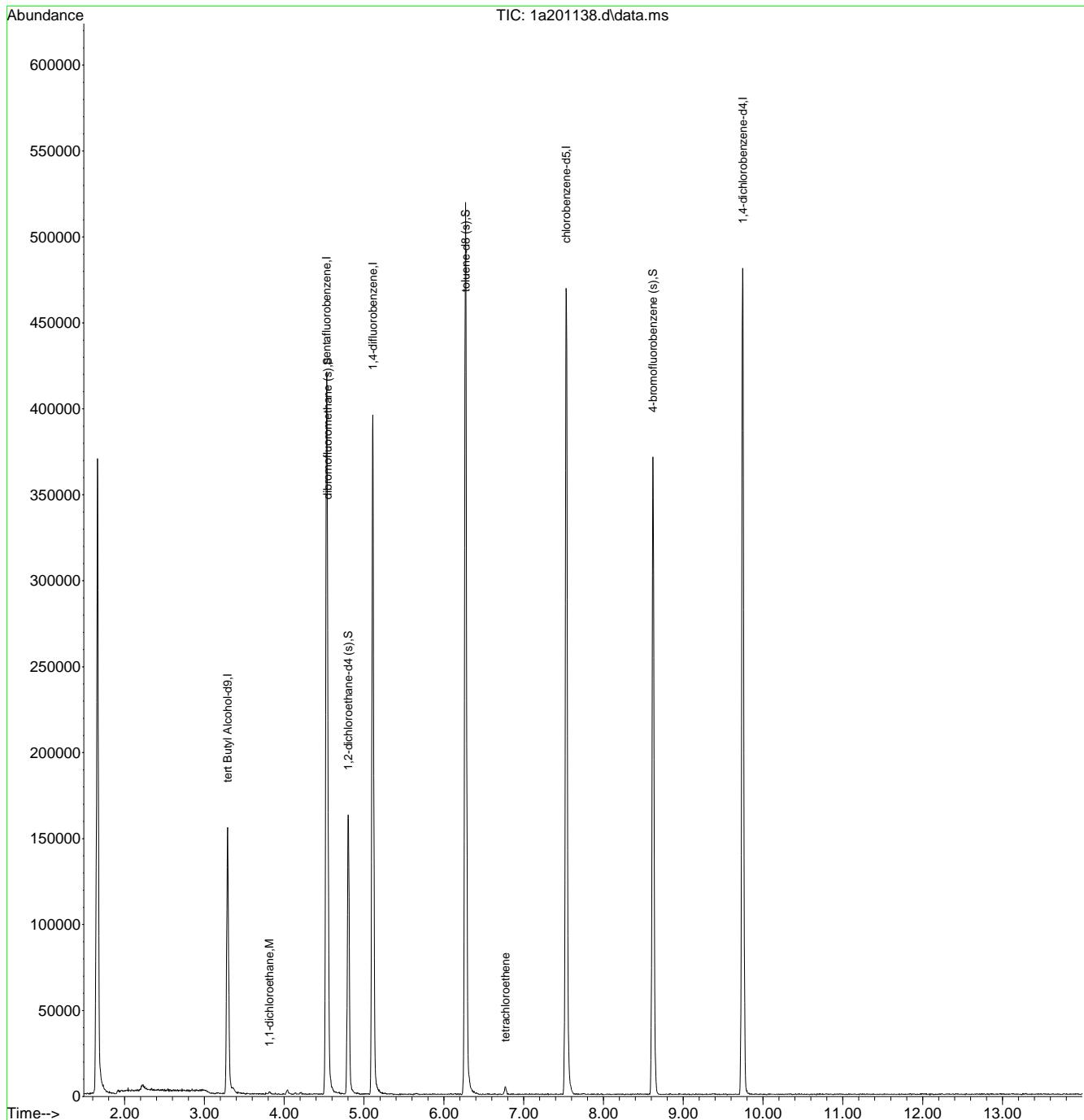
Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:33:00 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

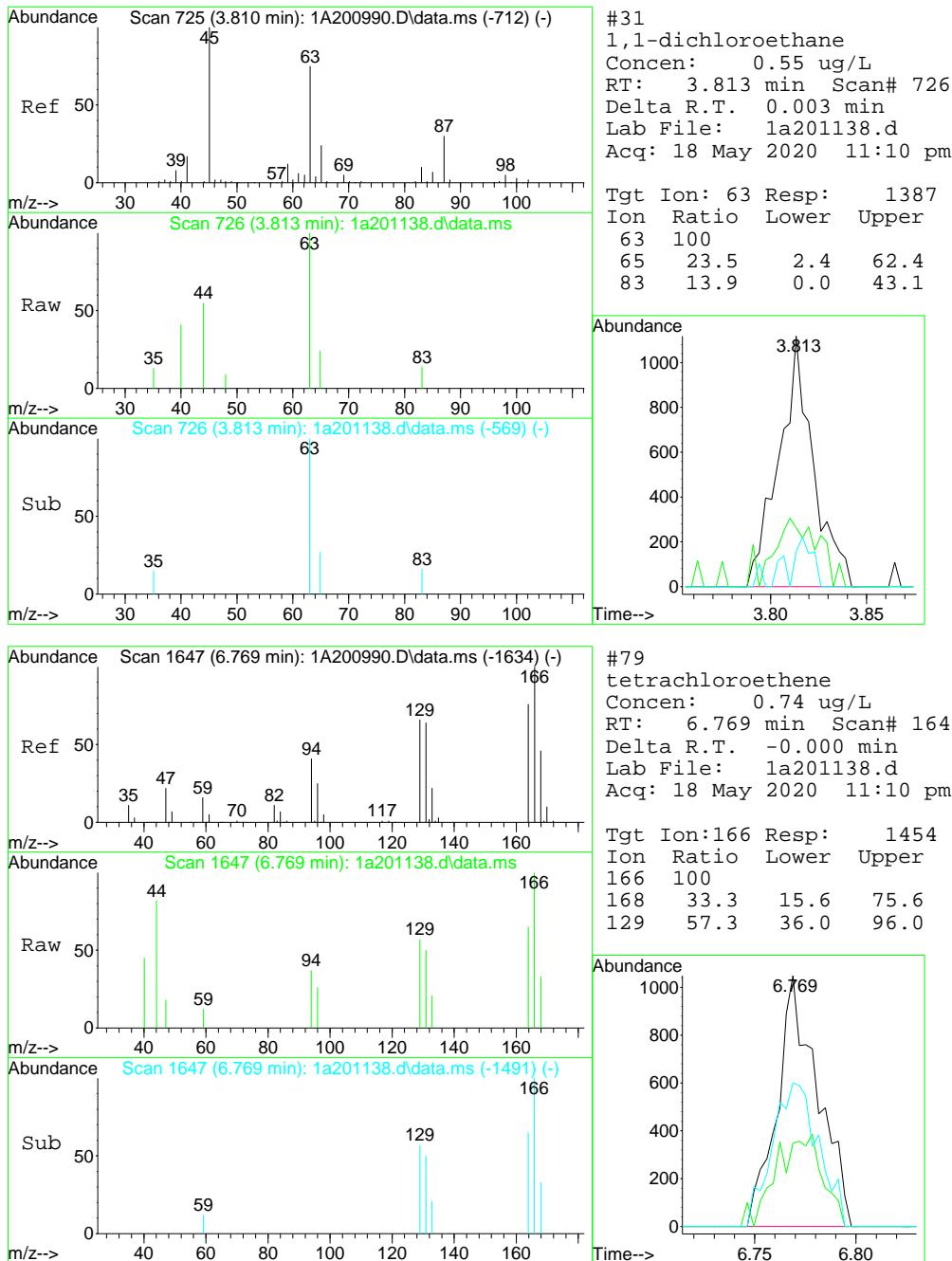
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	152664	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	189161	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	288782	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	270531	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.743	152	133497	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	87216	55.80	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	111.60%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	98950	52.20	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	104.40%	
73) toluene-d8 (s)	6.271	98	332914	50.26	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	100.52%	
97) 4-bromofluorobenzene (s)	8.620	95	124555	51.51	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	103.02%	
<hr/>						
Target Compounds						
31) 1,1-dichloroethane	3.813	63	1387	0.55	ug/L	88
79) tetrachloroethene	6.769	166	1454	0.74	ug/L	86
<hr/>						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201138.d
 Acq On : 18 May 2020 11:10 pm
 Operator : brittank
 Sample : jd7277-3
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 14 Sample Multiplier: 1
 Inst : MSDTEST1A
 Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:33:00 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201139.d
 Acq On : 18 May 2020 11:34 pm
 Operator : brittank
 Sample : jd7277-4 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 15 Sample Multiplier: 1

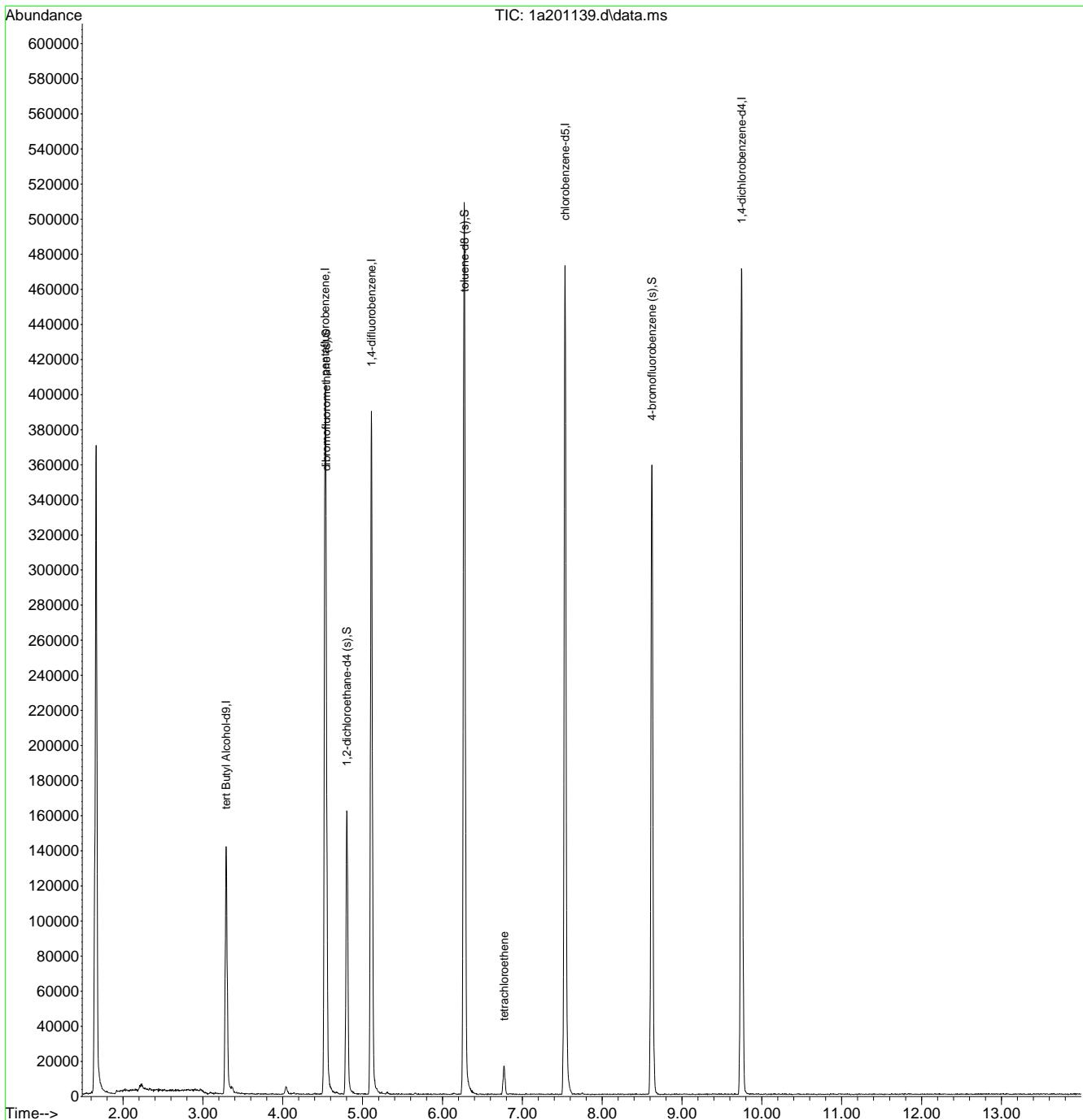
Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:33:50 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

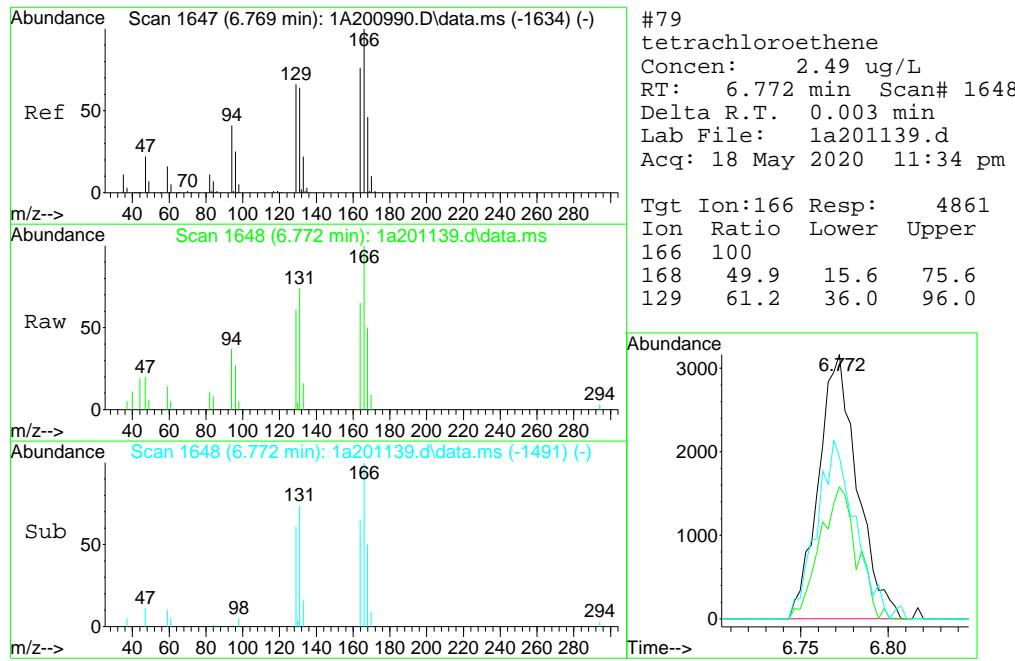
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.287	65	139984	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	189702	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	284047	50.00	ug/L	0.00
72) chlorobenzene-d5	7.536	117	268481	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.743	152	130400	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	86569	55.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	110.46%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	99200	53.20	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	106.40%	
73) toluene-d8 (s)	6.275	98	332338	50.55	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	101.10%	
97) 4-bromofluorobenzene (s)	8.624	95	122114	51.70	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	103.40%	
<hr/>						
Target Compounds						
79) tetrachloroethene	6.772	166	4861	2.49	ug/L	94
<hr/>						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201139.d
 Acq On : 18 May 2020 11:34 pm
 Operator : brittank
 Sample : jd7277-4
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 15 Sample Multiplier: 1
 Inst : MSDTEST1A
 Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:33:50 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201140.d
 Acq On : 18 May 2020 11:59 pm
 Operator : brittank
 Sample : jd7277-5 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:34:37 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.287	65	141235	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	186423	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	280039	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	263816	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.744	152	130500	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.542	113	83566	54.25	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	108.50%
52) 1,2-dichloroethane-d4 (s)	4.802	65	98006	53.31	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	106.62%
73) toluene-d8 (s)	6.271	98	327616	50.72	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.44%
97) 4-bromofluorobenzene (s)	8.620	95	121097	51.23	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.46%

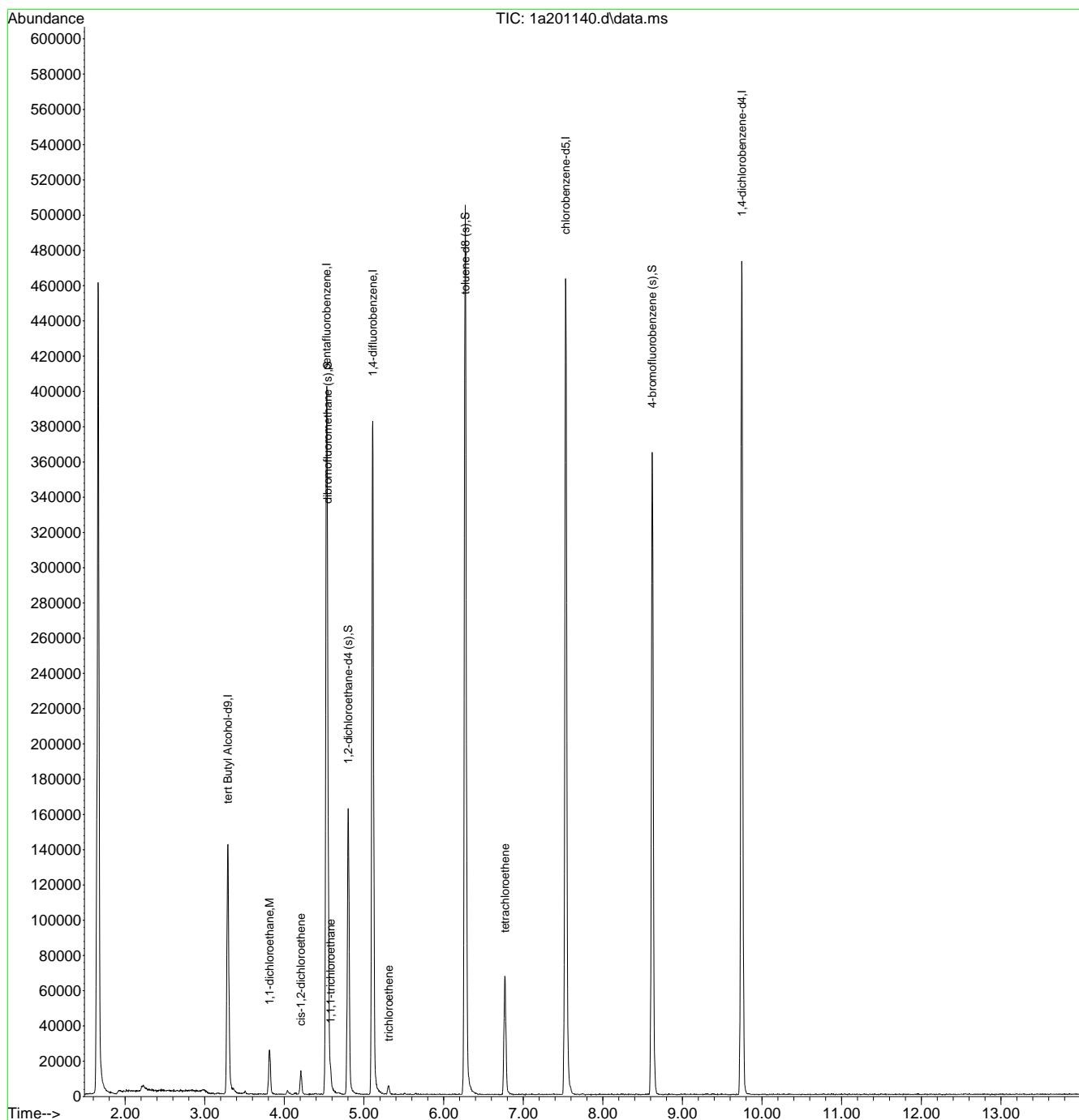
Target Compounds

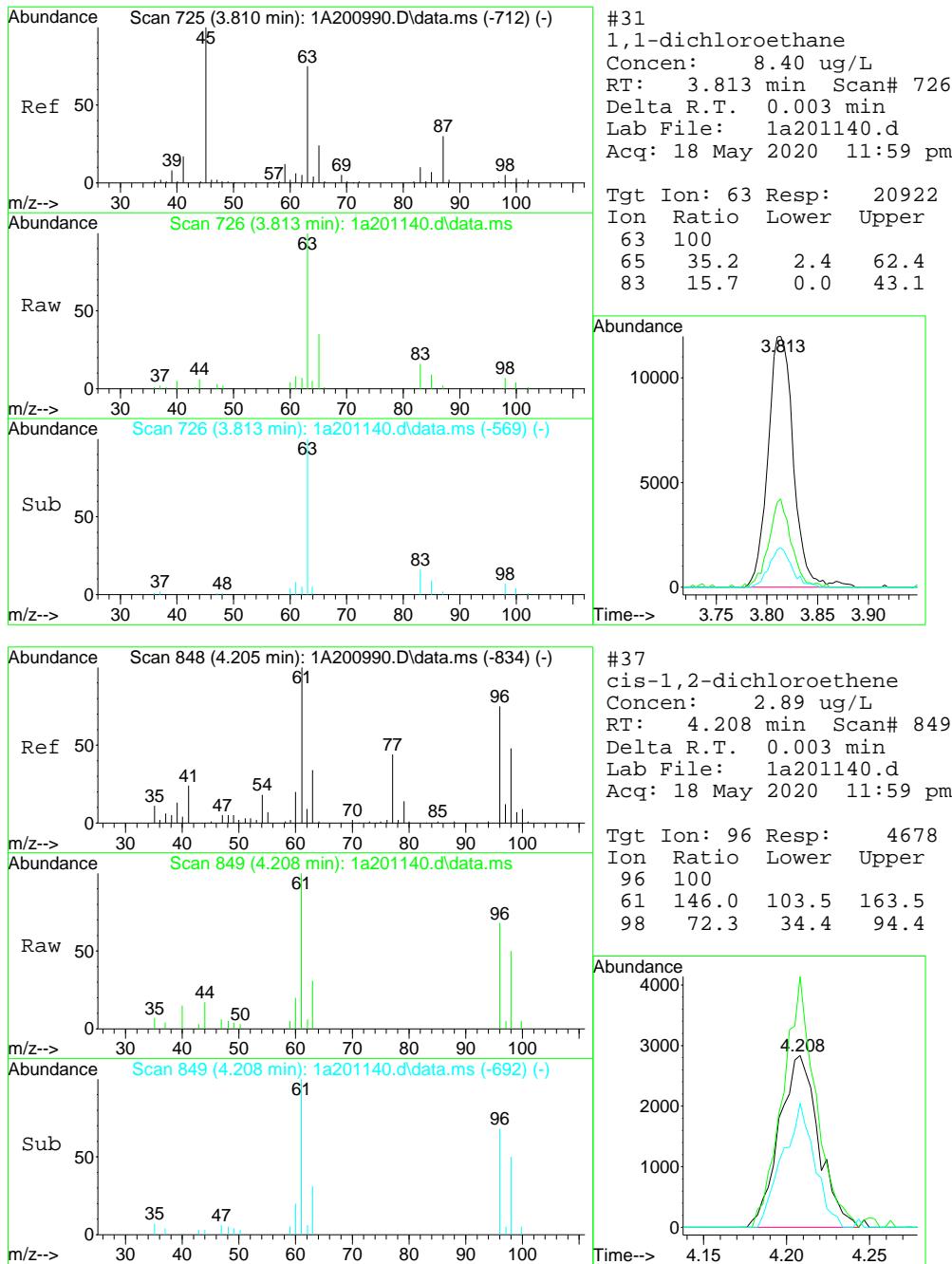
				Qvalue	
31) 1,1-dichloroethane	3.813	63	20922	8.40	ug/L
37) cis-1,2-dichloroethene	4.208	96	4678	2.89	ug/L
45) 1,1,1-trichloroethane	4.580	97	3847	1.66	ug/L
59) trichloroethene	5.309	95	1587	1.00	ug/L
79) tetrachloroethene	6.772	166	20106	10.49	ug/L

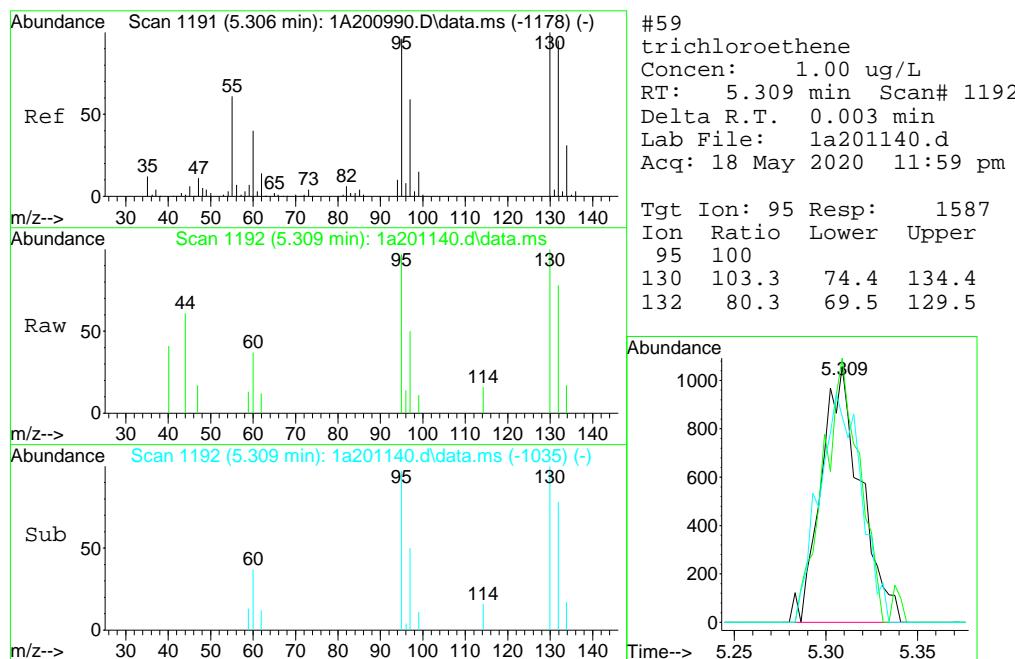
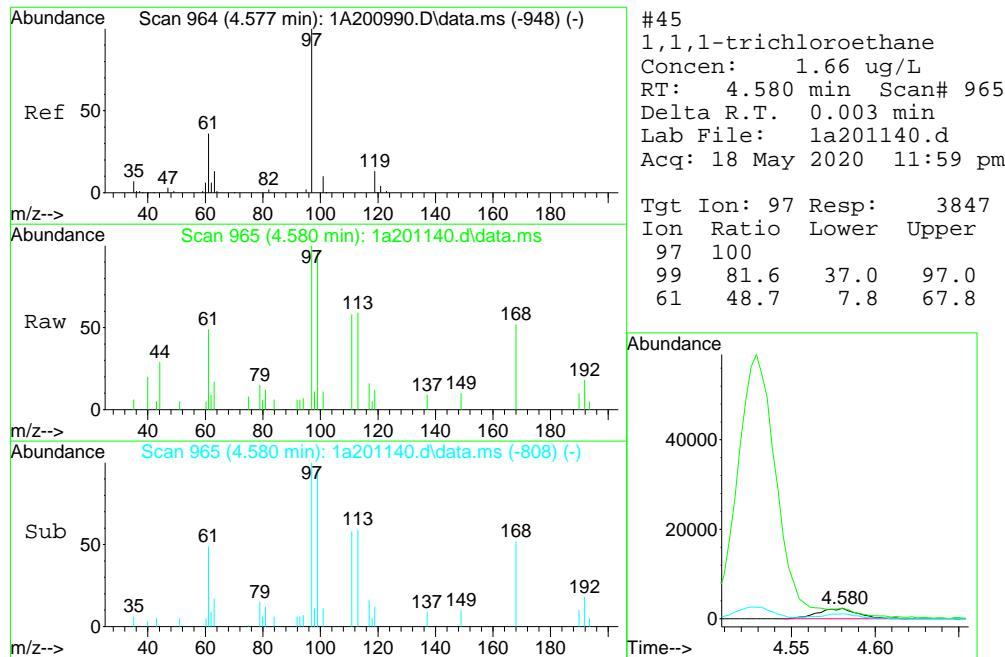
(#) = qualifier out of range (m) = manual integration (+) = signals summed

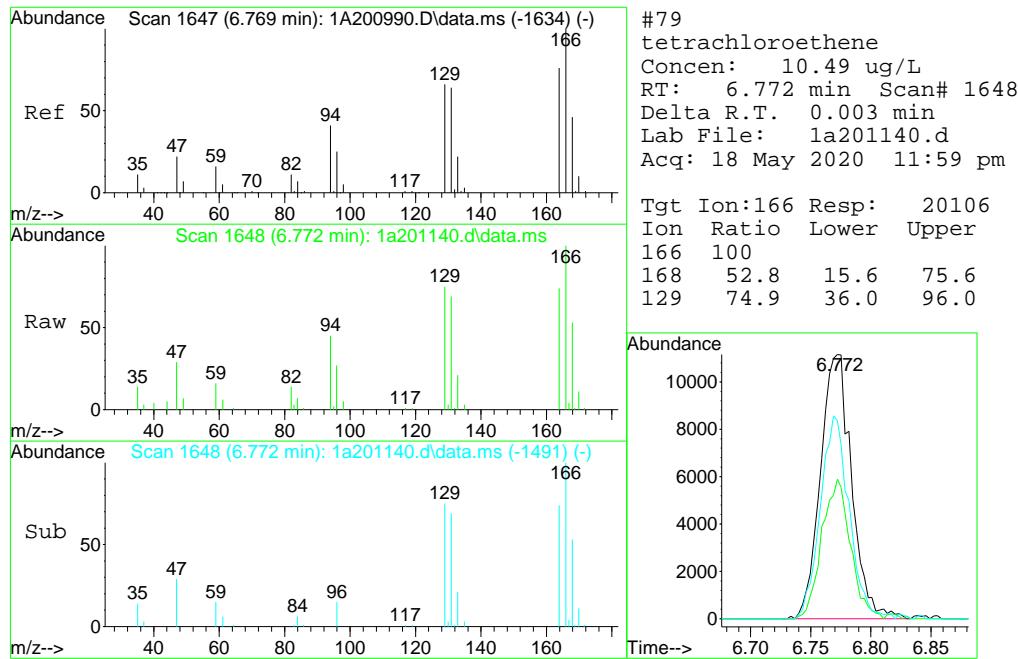
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201140.d
 Acq On : 18 May 2020 11:59 pm
 Operator : brittank
 Sample : jd7277-5
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 16 Sample Multiplier: 1
 Inst : MSDTEST1A
 Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:34:37 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration









Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201141.d
 Acq On : 19 May 2020 12:24 am
 Operator : brittank
 Sample : jd7277-6 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 17 Sample Multiplier: 1

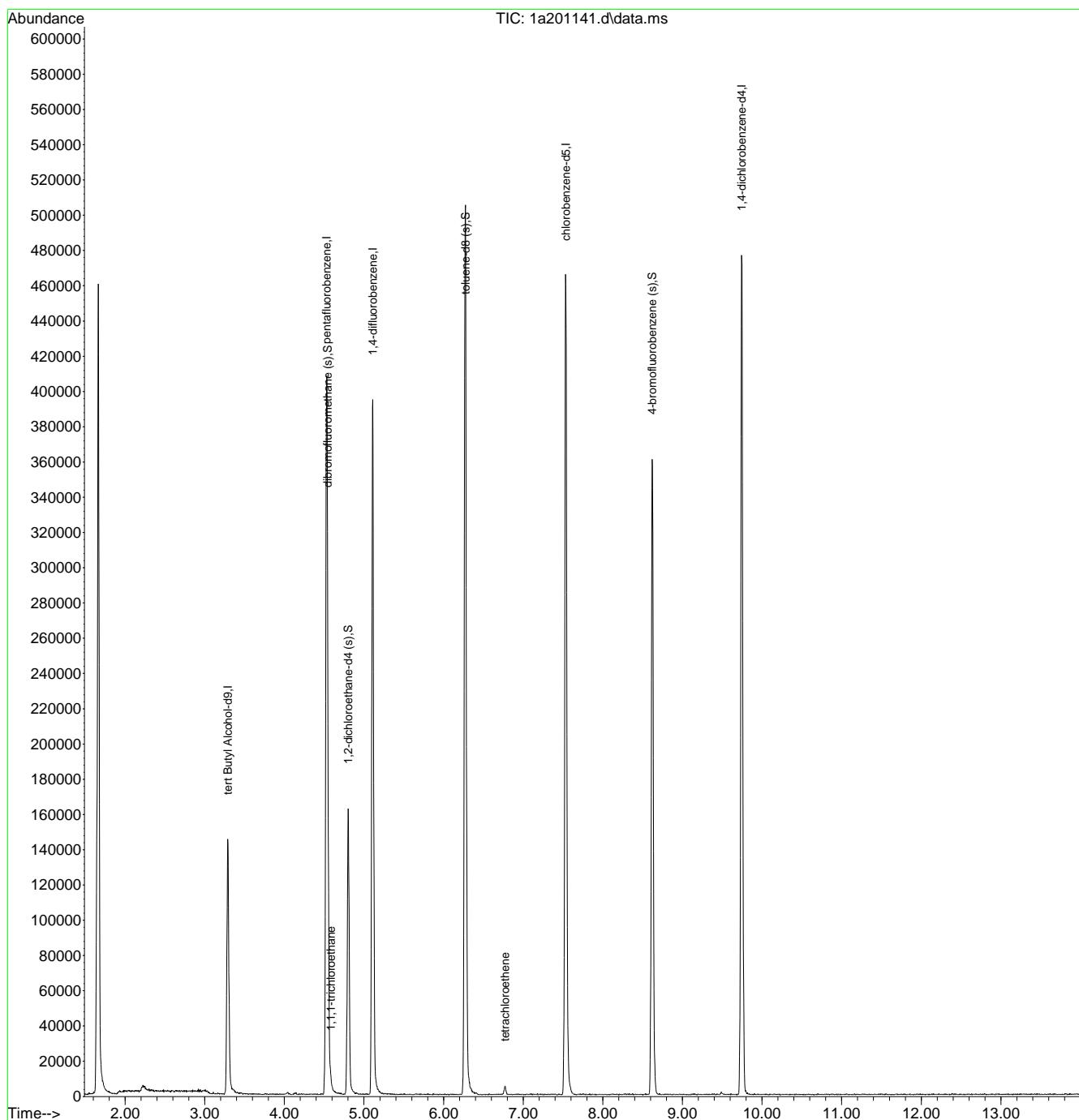
Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:35:16 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

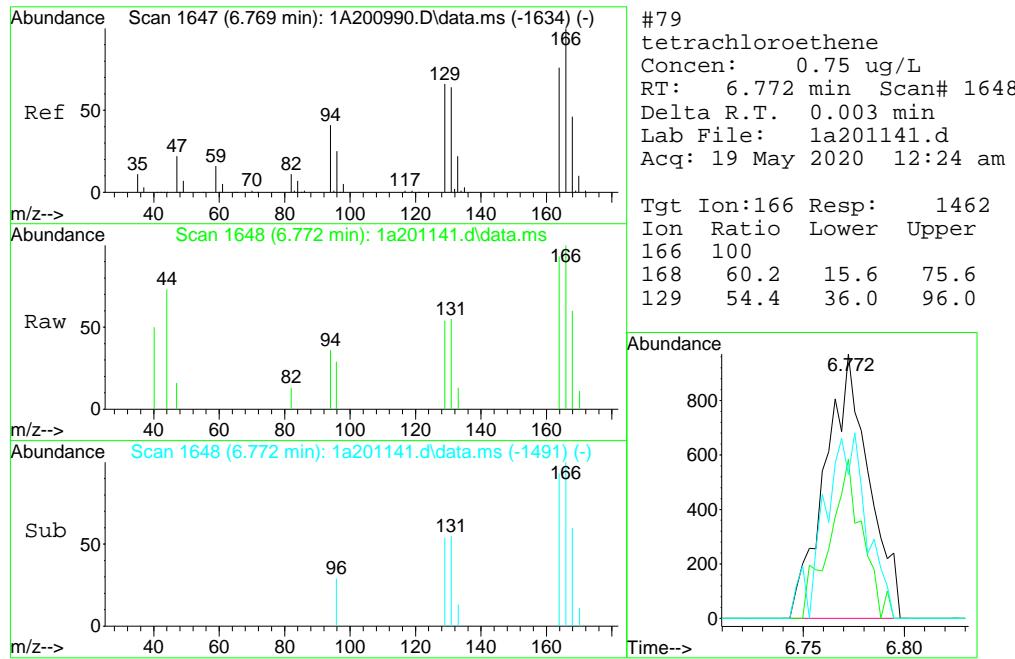
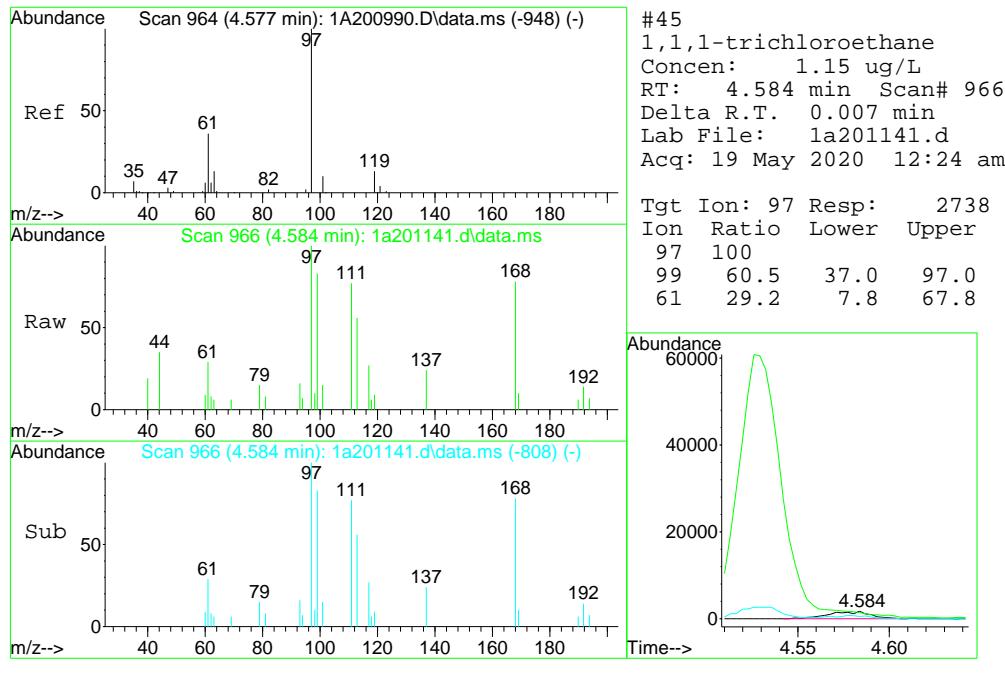
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.287	65	143483	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	190547	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	285609	50.00	ug/L	0.00
72) chlorobenzene-d5	7.536	117	268086	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.744	152	132276	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	85667	54.41	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	108.82%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	99786	53.22	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	106.44%	
73) toluene-d8 (s)	6.275	98	334295	50.93	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	101.86%	
97) 4-bromofluorobenzene (s)	8.621	95	123293	51.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	102.92%	
<hr/>						
Target Compounds						
45) 1,1,1-trichloroethane	4.584	97	2738	1.15	ug/L	90
79) tetrachloroethene	6.772	166	1462	0.75	ug/L	82
<hr/>						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201141.d
 Acq On : 19 May 2020 12:24 am
 Operator : brittank
 Sample : jd7277-6
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 17 Sample Multiplier: 1
 Inst : MSDTEST1A
 Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:35:16 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201142.d
 Acq On : 19 May 2020 12:49 am
 Operator : brittank
 Sample : jd7277-7 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:35:52 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

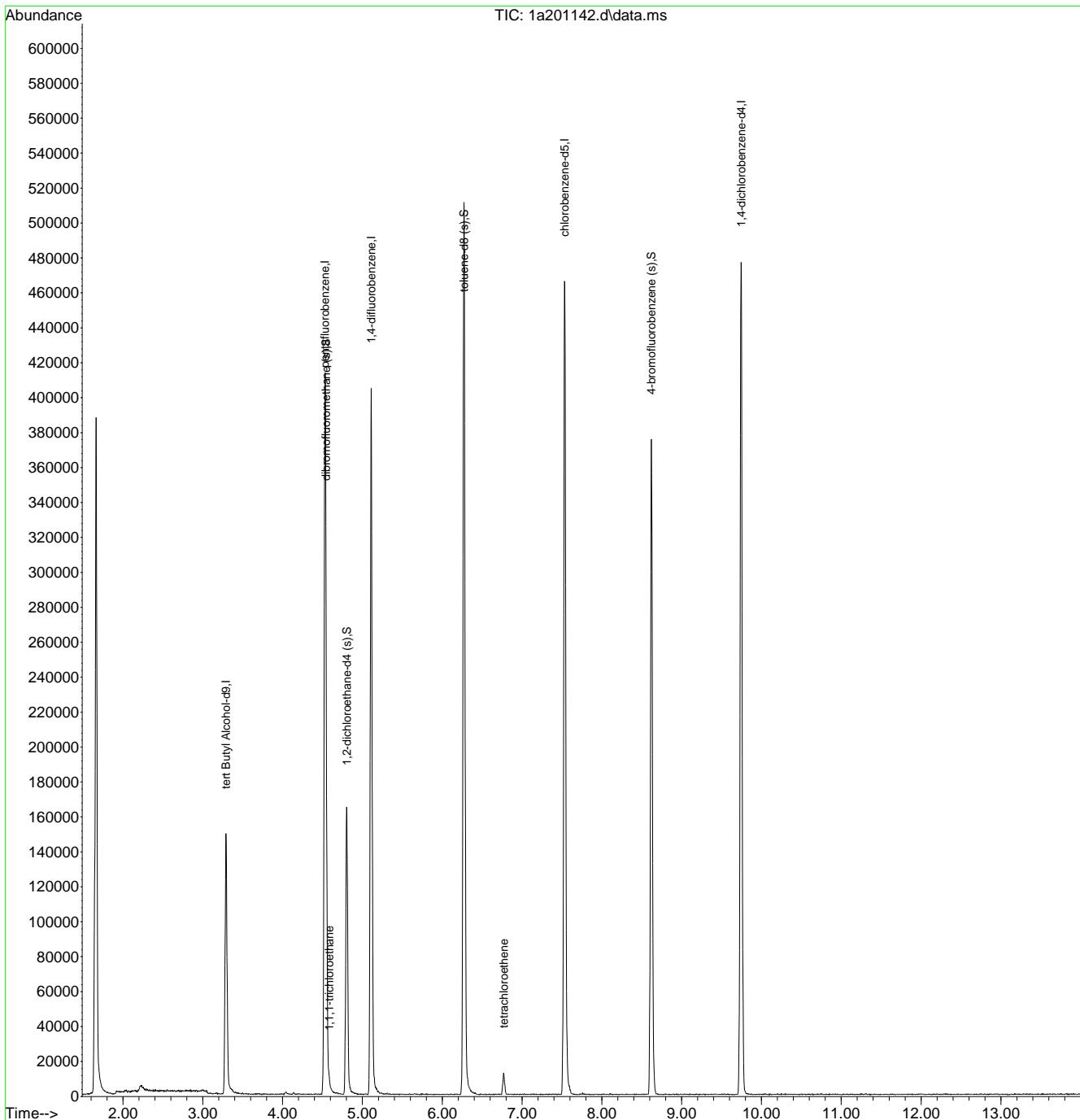
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.287	65	149023	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	191847	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	286120	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	269505	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	133646	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	85899	54.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	108.38%	
52) 1,2-dichloroethane-d4 (s)	4.805	65	100685	53.60	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	107.20%	
73) toluene-d8 (s)	6.272	98	333327	50.51	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	101.02%	
97) 4-bromofluorobenzene (s)	8.621	95	123694	51.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	102.20%	
<hr/>						
Target Compounds						
45) 1,1,1-trichloroethane	4.584	97	1700	0.71	ug/L	75
79) tetrachloroethene	6.769	166	3399	1.74	ug/L	96

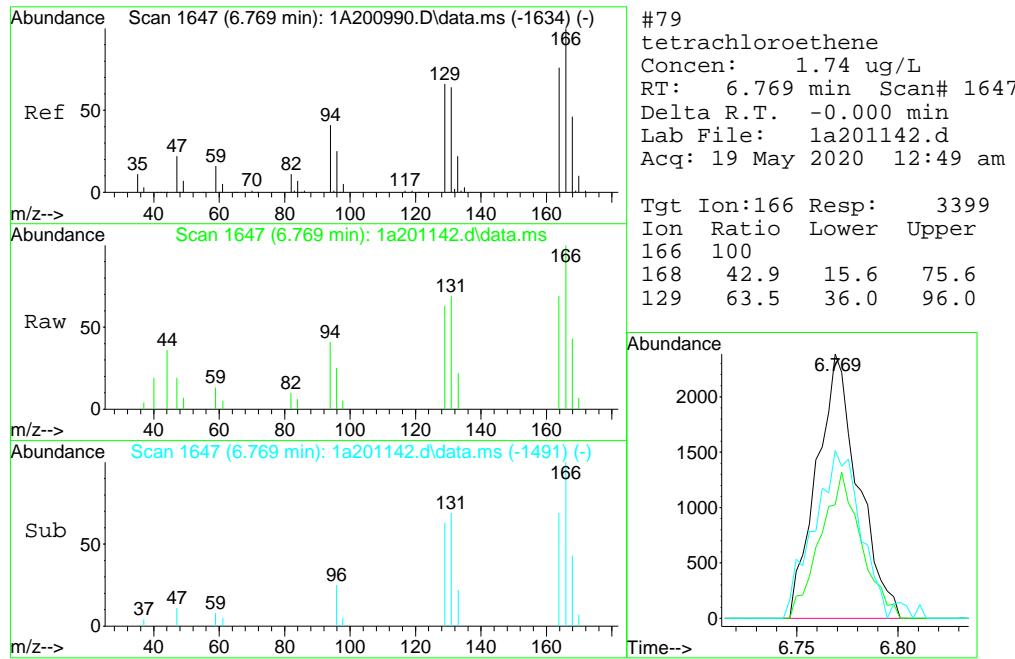
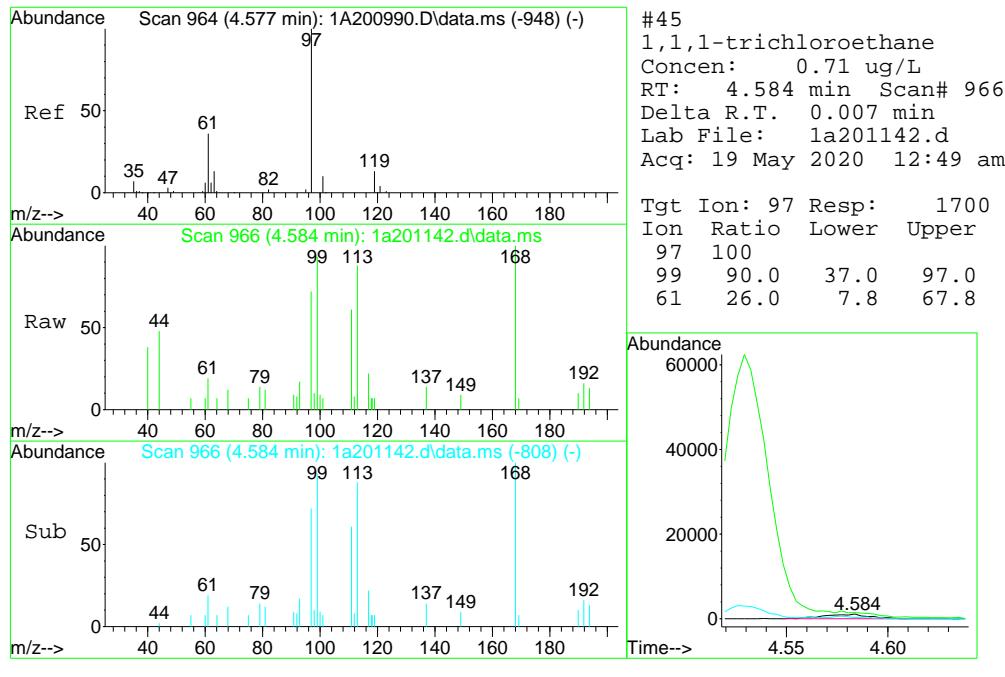
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201142.d
 Acq On : 19 May 2020 12:49 am
 Operator : brittank
 Sample : jd7277-7
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 18 Sample Multiplier: 1
 Inst : MSDTEST1A

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:35:52 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201143.d
 Acq On : 19 May 2020 1:14 am
 Operator : brittank
 Sample : jd7277-8 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 19 Sample Multiplier: 1

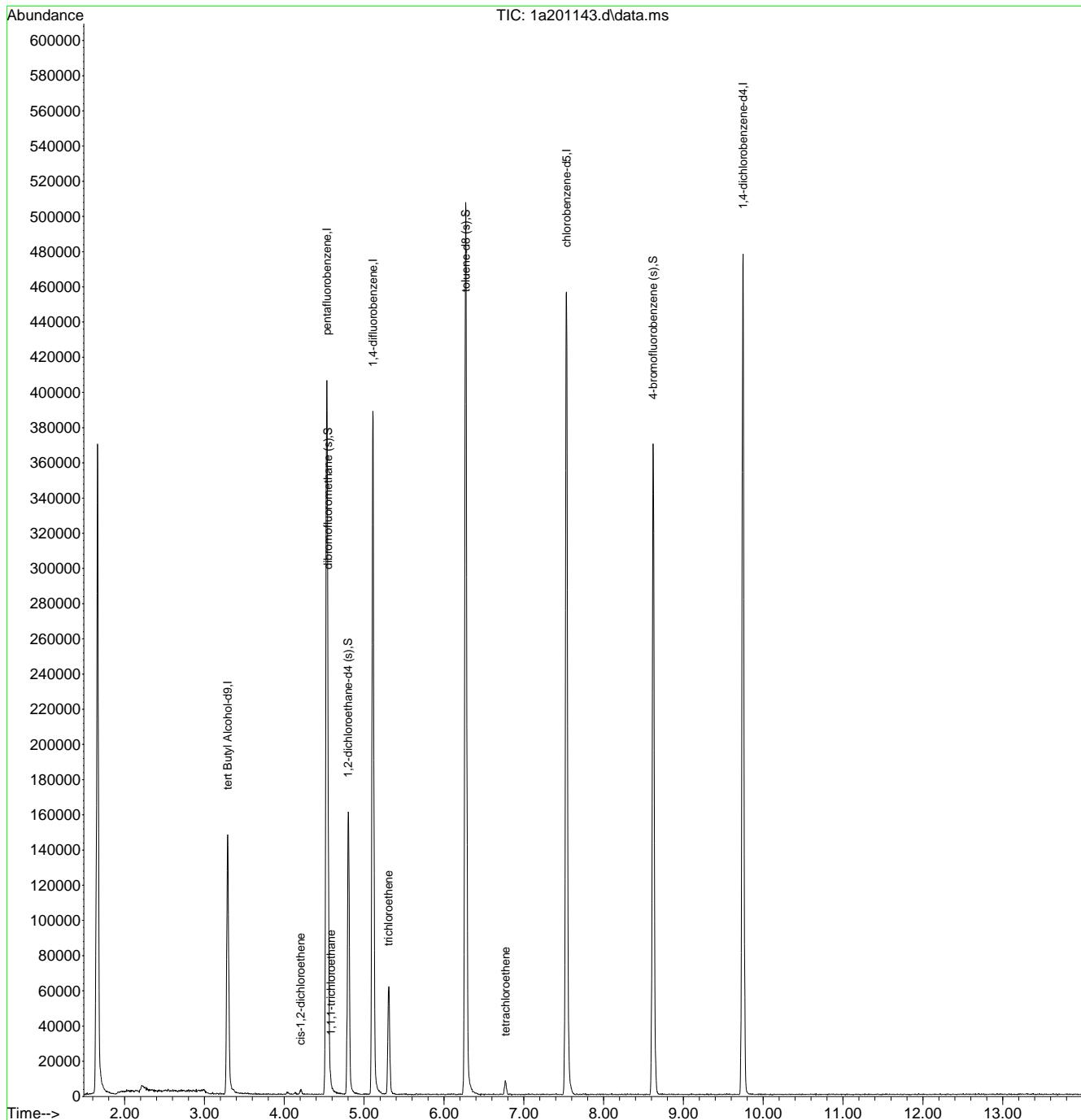
Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:36:31 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

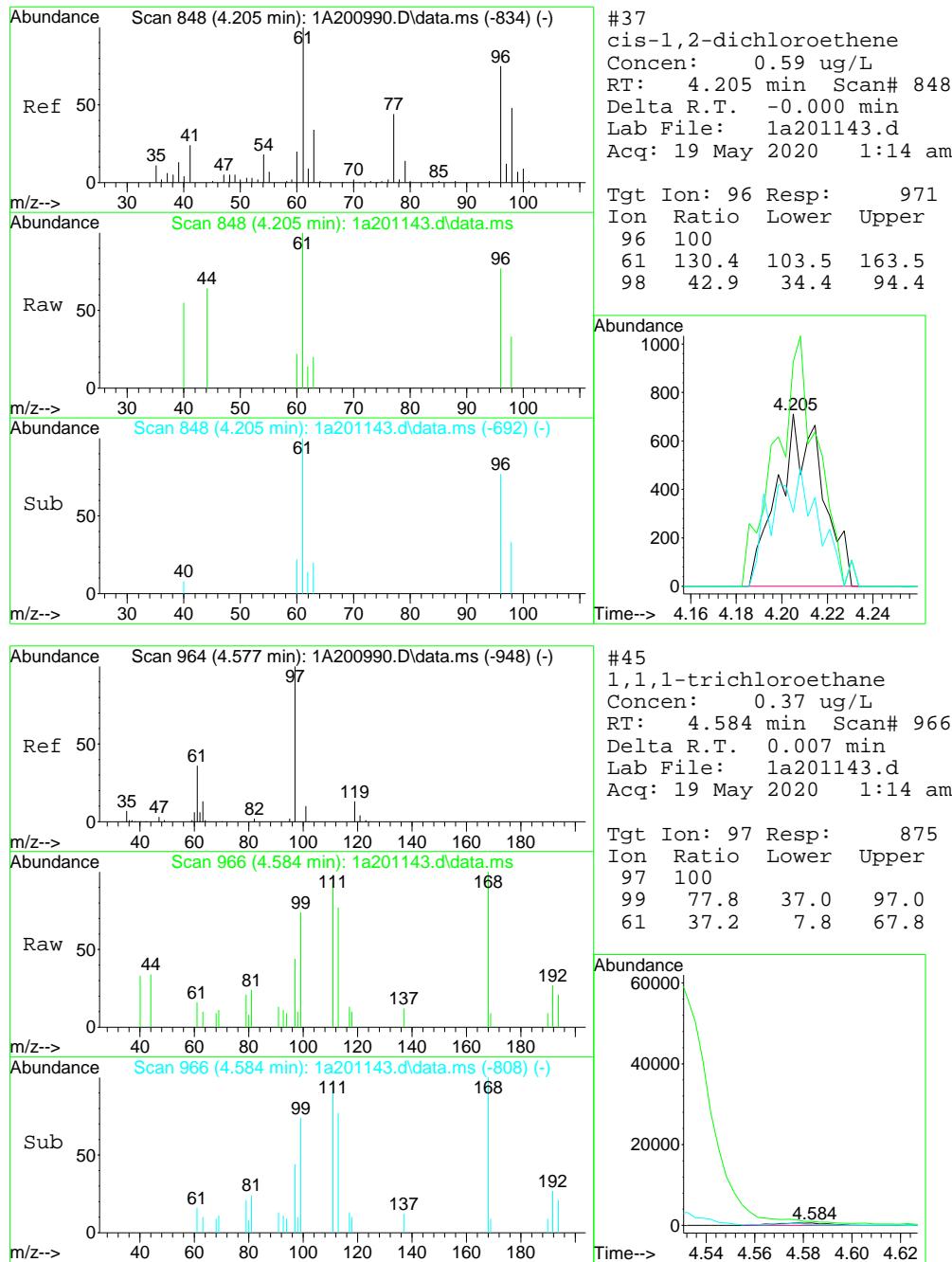
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	148586	500.00	ug/L	0.00
5) pentafluorobenzene	4.532	168	188392	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	286040	50.00	ug/L	0.00
72) chlorobenzene-d5	7.536	117	265758	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	131494	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.545	113	84849	54.51	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 109.02%		
52) 1,2-dichloroethane-d4 (s)	4.799	65	98101	52.24	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 104.48%		
73) toluene-d8 (s)	6.271	98	330863	50.85	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 101.70%		
97) 4-bromofluorobenzene (s)	8.620	95	123484	51.85	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 103.70%		
<hr/>						
Target Compounds						
37) cis-1,2-dichloroethene	4.205	96	971	0.59	ug/L	89
45) 1,1,1-trichloroethane	4.584	97	875	0.37	ug/L	91
59) trichloroethene	5.306	95	17962	11.04	ug/L	91
79) tetrachloroethene	6.769	166	2245	1.16	ug/L	85

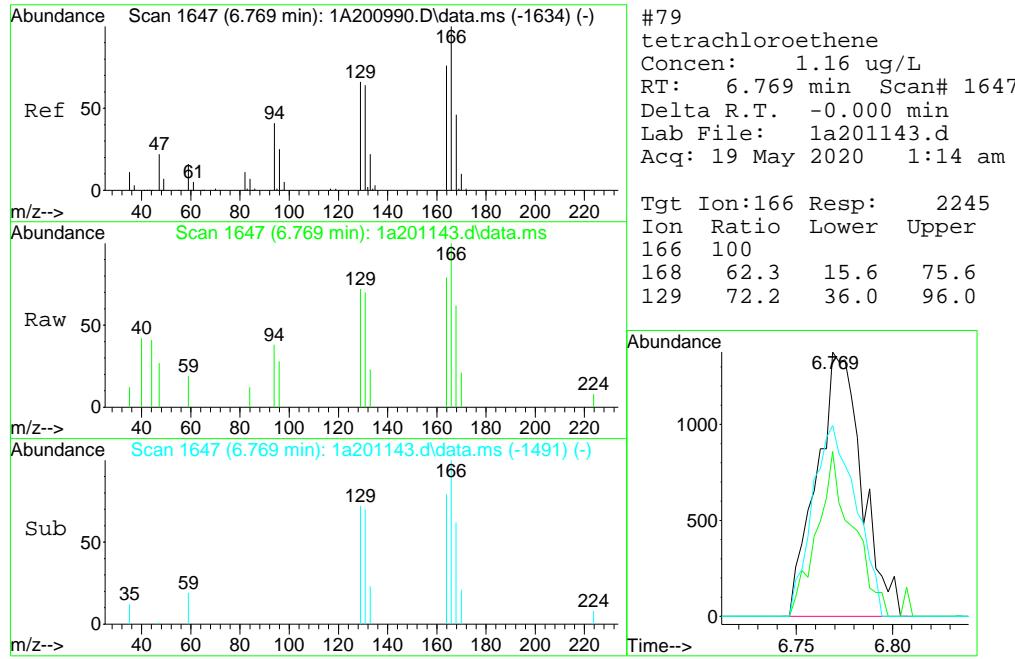
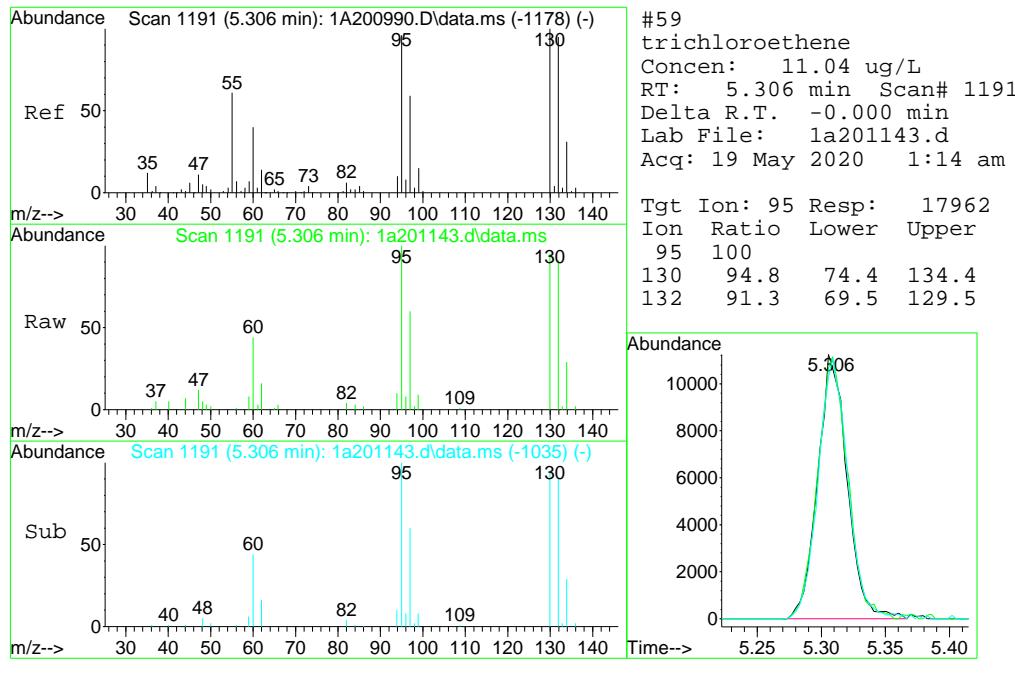
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201143.d
 Acq On : 19 May 2020 1:14 am
 Operator : brittank
 Sample : jd7277-8
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 19 Sample Multiplier: 1 Inst : MSDTEST1A
 Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:36:31 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration







Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201144.d
 Acq On : 19 May 2020 1:38 am
 Operator : brittank
 Sample : jd7277-9 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 20 Sample Multiplier: 1

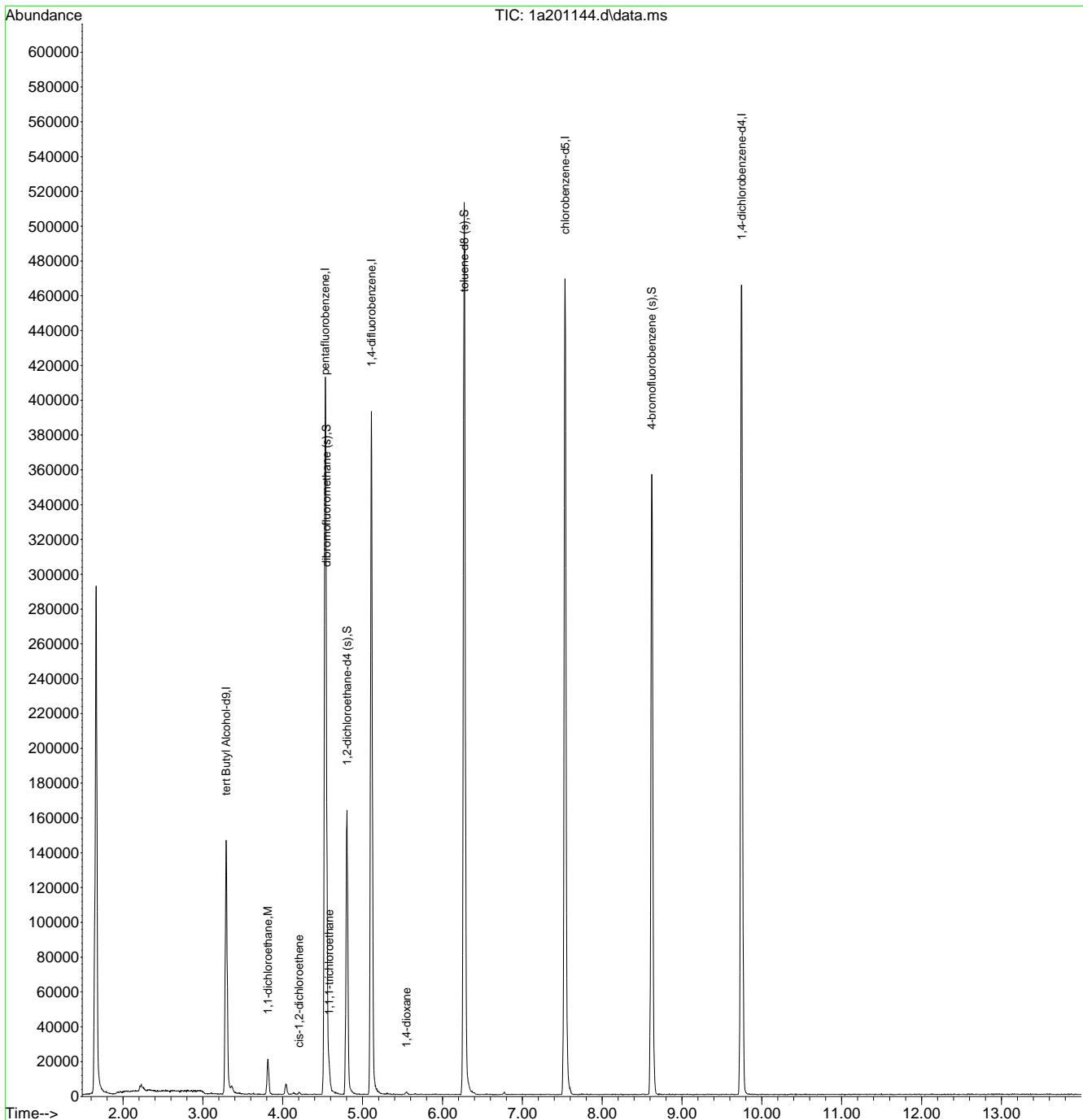
Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:37:50 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

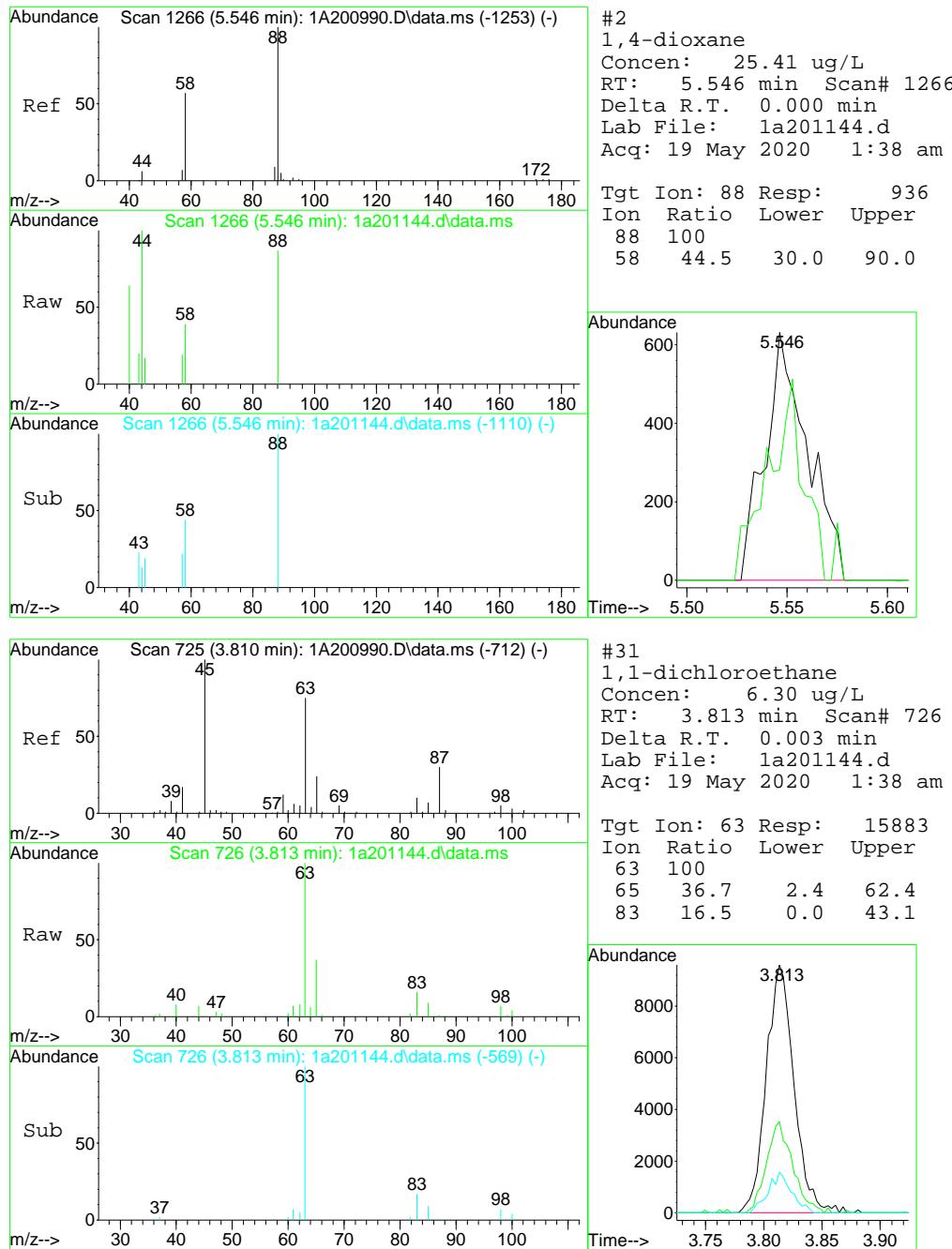
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	143150	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	188802	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	285034	50.00	ug/L	0.00
72) chlorobenzene-d5	7.536	117	267076	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	130282	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.545	113	84589	54.22	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	108.44%	
52) 1,2-dichloroethane-d4 (s)	4.805	65	97861	52.30	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	104.60%	
73) toluene-d8 (s)	6.272	98	333785	51.04	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	102.08%	
97) 4-bromofluorobenzene (s)	8.620	95	121264	51.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	102.78%	
<hr/>						
Target Compounds						
2) 1,4-dioxane	5.546	88	936	25.41	ug/L	79
31) 1,1-dichloroethane	3.813	63	15883	6.30	ug/L	92
37) cis-1,2-dichloroethene	4.202	96	335	0.20	ug/L	# 73
45) 1,1,1-trichloroethane	4.577	97	5928	2.52	ug/L	89

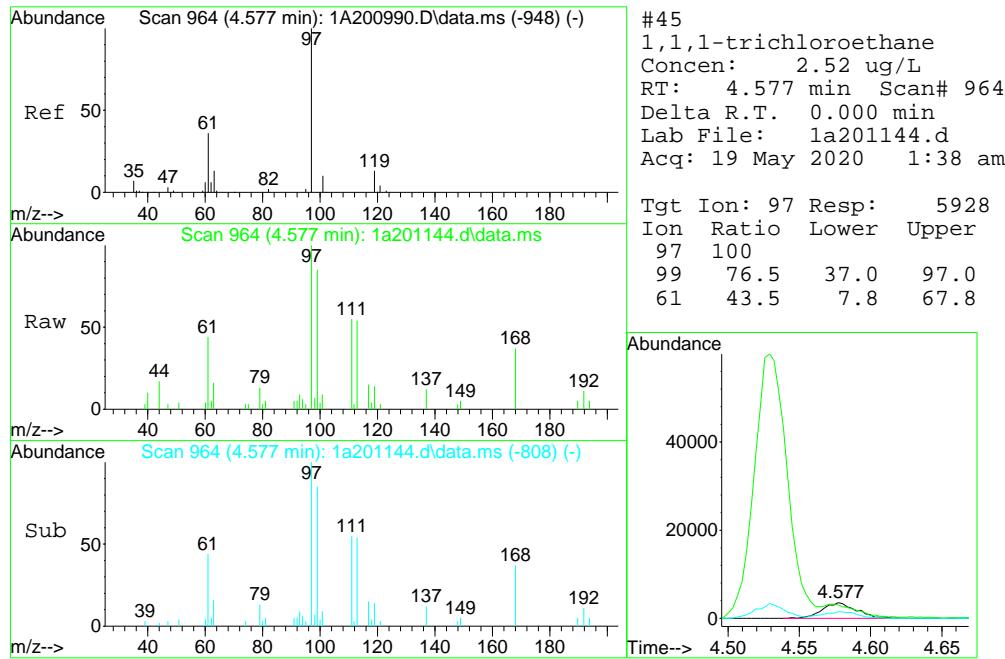
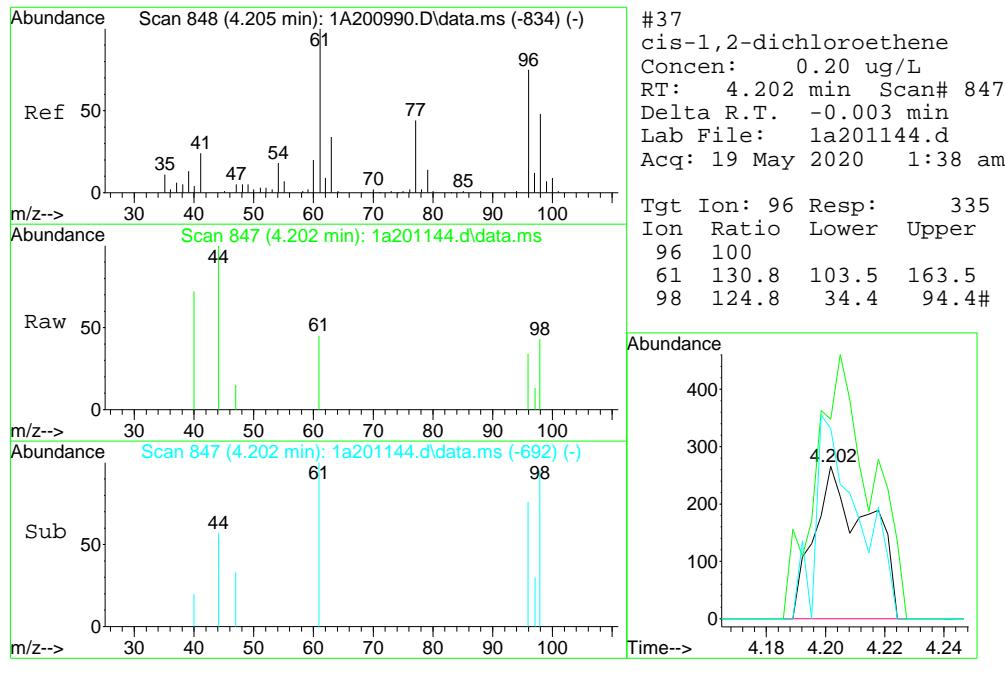
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201144.d
 Acq On : 19 May 2020 1:38 am
 Operator : brittank
 Sample : jd7277-9
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 20 Sample Multiplier: 1
 Inst : MSDTEST1A
 Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:37:50 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration







Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201145.d
 Acq On : 19 May 2020 2:03 am
 Operator : brittank
 Sample : jd7277-10 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:39:04 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

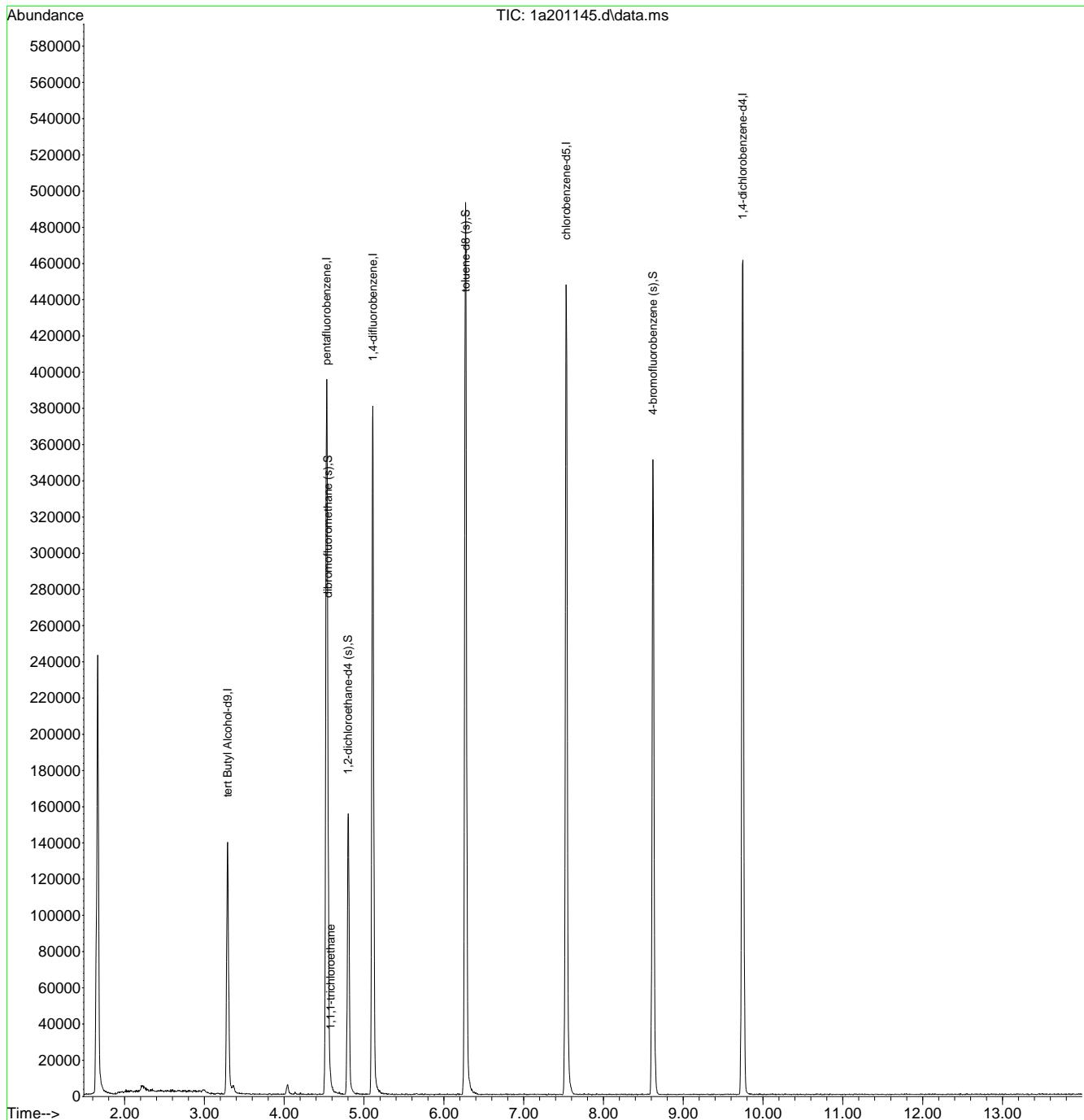
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.291	65	136997	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	182188	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	275499	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	255678	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.744	152	127225	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.545	113	80270	53.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	106.64%	
52) 1,2-dichloroethane-d4 (s)	4.799	65	93967	51.96	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	103.92%	
73) toluene-d8 (s)	6.272	98	319077	50.97	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	101.94%	
97) 4-bromofluorobenzene (s)	8.621	95	116571	50.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	101.18%	
<hr/>						
Target Compounds						
45) 1,1,1-trichloroethane	4.581	97	1742	0.77	ug/L	Qvalue # 65
<hr/>						

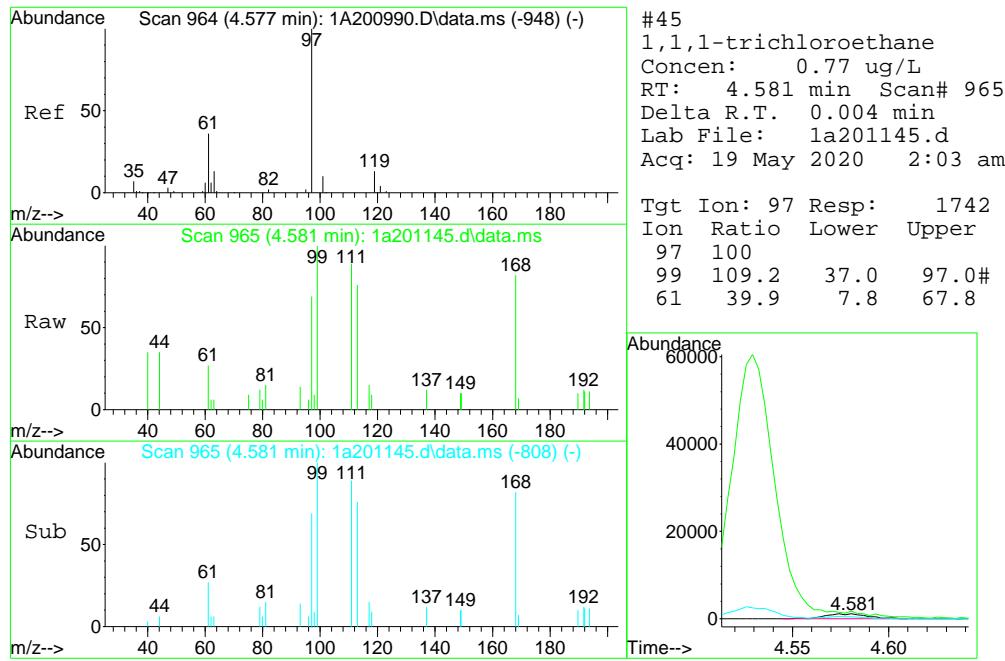
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201145.d
 Acq On : 19 May 2020 2:03 am
 Operator : brittank
 Sample : jd7277-10 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:39:04 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201146.d
 Acq On : 19 May 2020 2:28 am
 Operator : brittank
 Sample : jd7277-11 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:39:33 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	139540	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	182421	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	276864	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	256315	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	129419	50.00	ug/L	0.00

System Monitoring Compounds						
43) dibromofluoromethane (s)	4.545	113	82028	54.42	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	108.84%
52) 1,2-dichloroethane-d4 (s)	4.802	65	95213	52.39	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	104.78%
73) toluene-d8 (s)	6.271	98	322457	51.38	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.76%
97) 4-bromofluorobenzene (s)	8.617	95	118496	50.55	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.10%

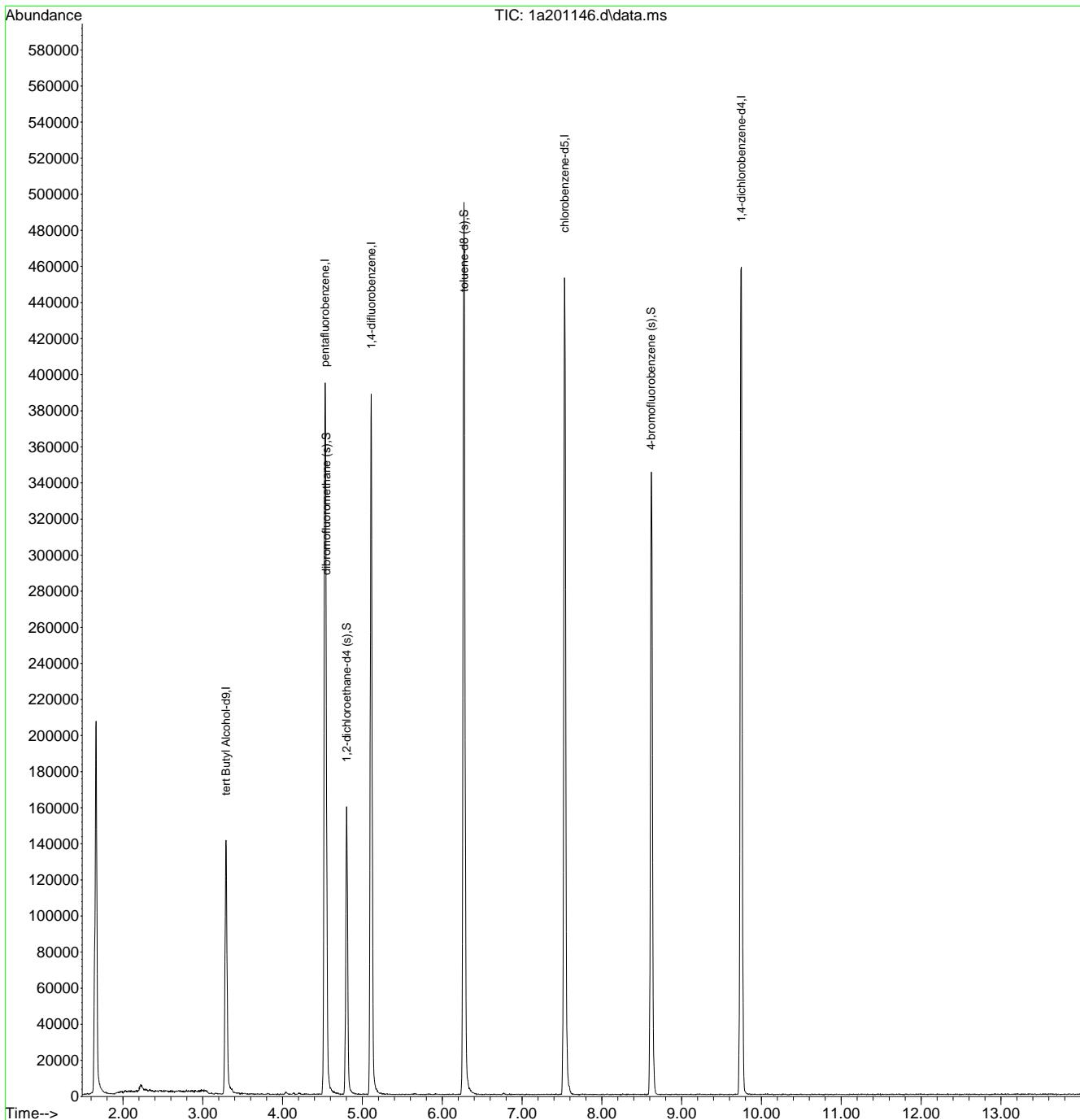
Target Compounds	Qvalue
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201146.d
 Acq On : 19 May 2020 2:28 am
 Operator : brittank
 Sample : jd7277-11 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:39:33 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201147.d
 Acq On : 19 May 2020 2:52 am
 Operator : brittank
 Sample : jd7277-12 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:40:42 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	141970	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	184160	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	278935	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	260291	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.743	152	126214	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.542	113	82792	54.41	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	108.82%
52) 1,2-dichloroethane-d4 (s)	4.802	65	96546	52.72	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	105.44%
73) toluene-d8 (s)	6.271	98	321792	50.49	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.98%
97) 4-bromofluorobenzene (s)	8.620	95	118631	51.90	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.80%

Target Compounds

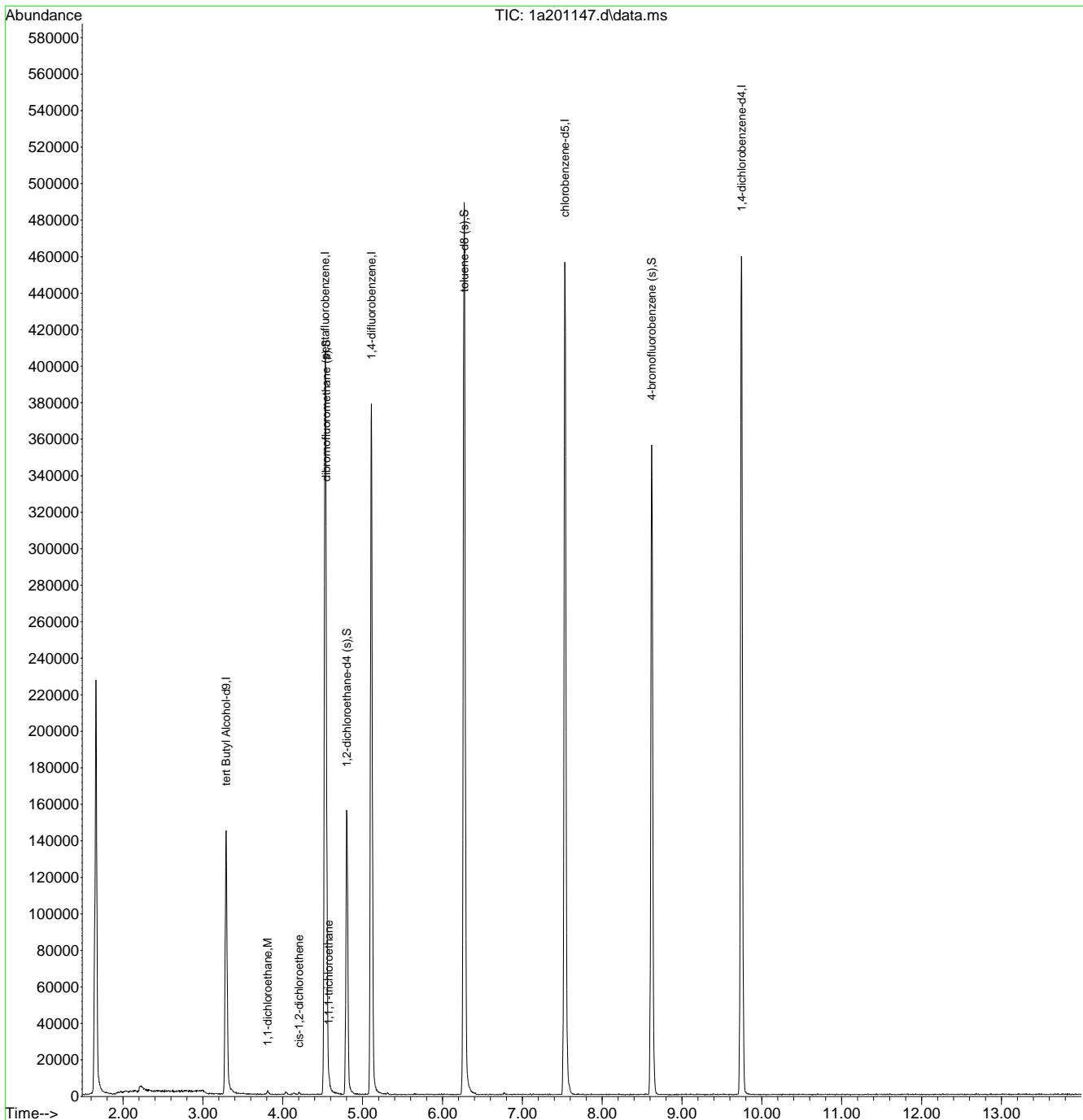
				Qvalue	
31) 1,1-dichloroethane	3.810	63	1680	0.68	ug/L # 94
37) cis-1,2-dichloroethene	4.205	96	321	0.20	ug/L # 48
45) 1,1,1-trichloroethane	4.574	97	1014	0.44	ug/L # 20

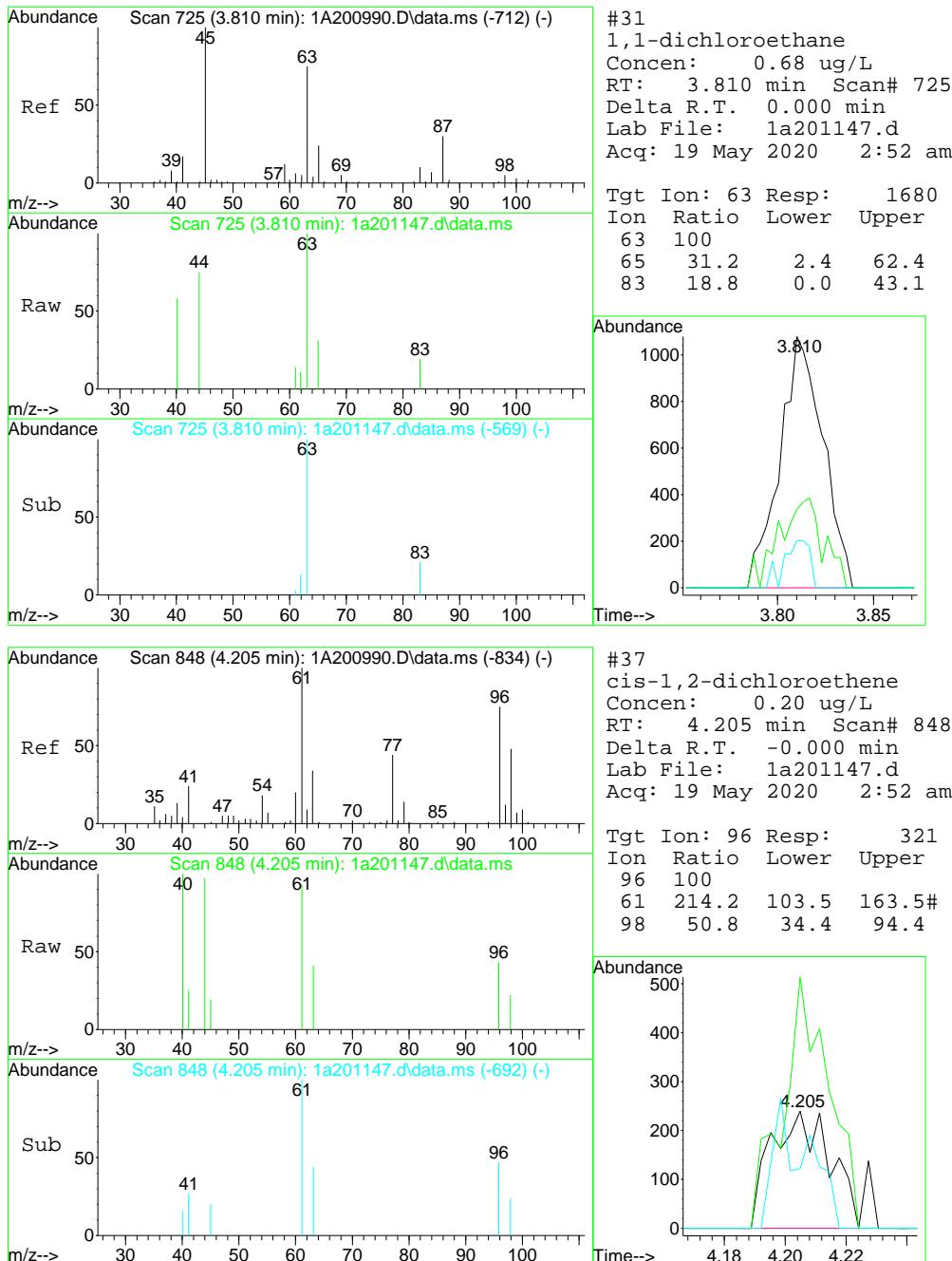
(#) = qualifier out of range (m) = manual integration (+) = signals summed

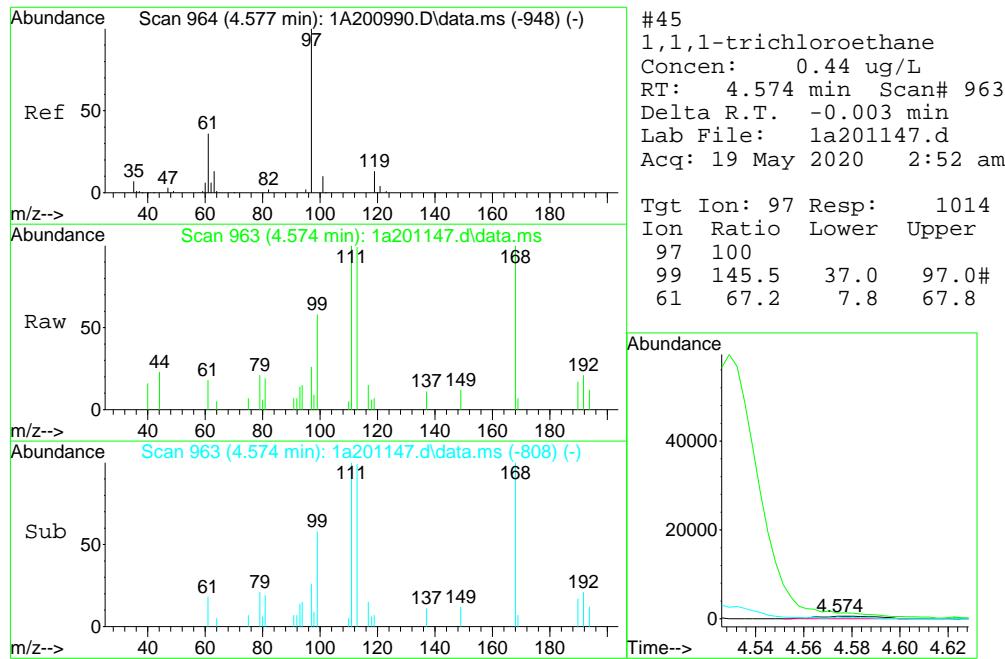
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201147.d
 Acq On : 19 May 2020 2:52 am
 Operator : brittank
 Sample : jd7277-12 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:40:42 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration







Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201130.d
 Acq On : 18 May 2020 7:52 pm
 Operator : brittank
 Sample : jd7277-13 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 6 Sample Multiplier: 1

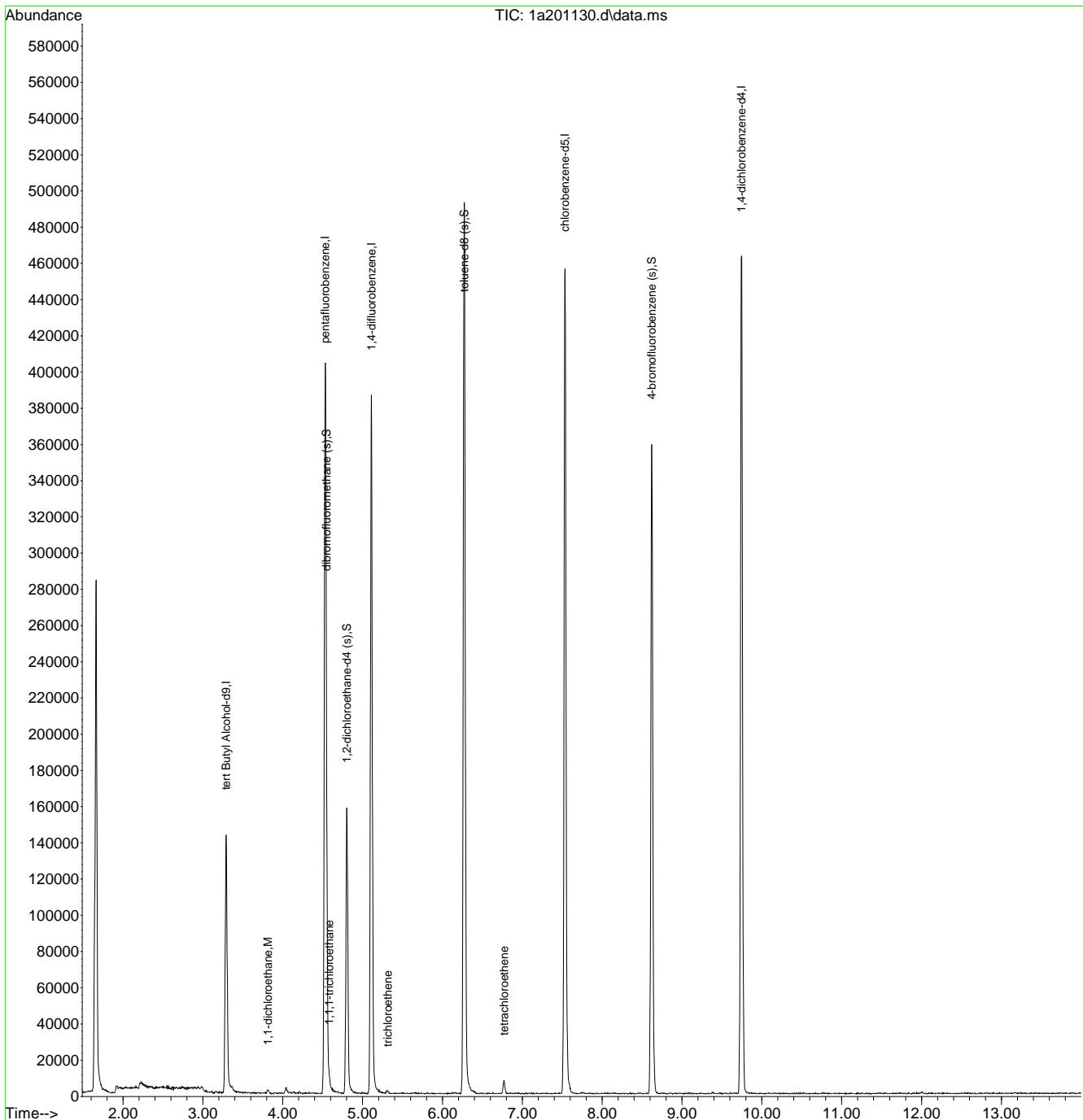
Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:22:53 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

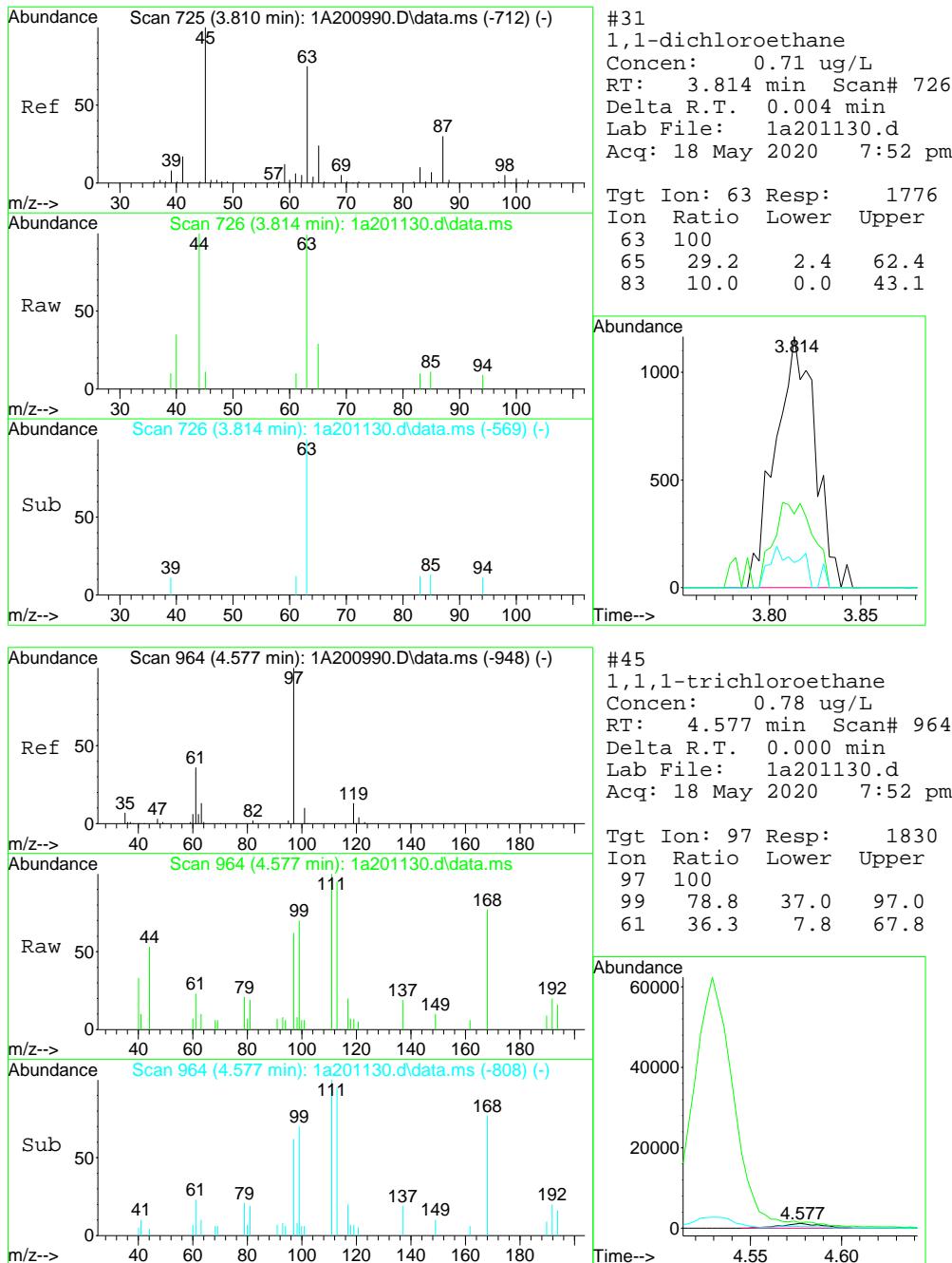
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.291	65	145131	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	187493	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	282347	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	261337	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.744	152	129403	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.545	113	82422	53.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 106.40%		
52) 1,2-dichloroethane-d4 (s)	4.802	65	95859	51.72	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 103.44%		
73) toluene-d8 (s)	6.272	98	327237	51.14	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 102.28%		
97) 4-bromofluorobenzene (s)	8.621	95	120941	51.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 103.20%		
<hr/>						
Target Compounds						
31) 1,1-dichloroethane	3.814	63	1776	0.71	ug/L	94
45) 1,1,1-trichloroethane	4.577	97	1830	0.78	ug/L	90
59) trichloroethene	5.312	95	475	0.30	ug/L	76
79) tetrachloroethene	6.769	166	2083	1.10	ug/L	89

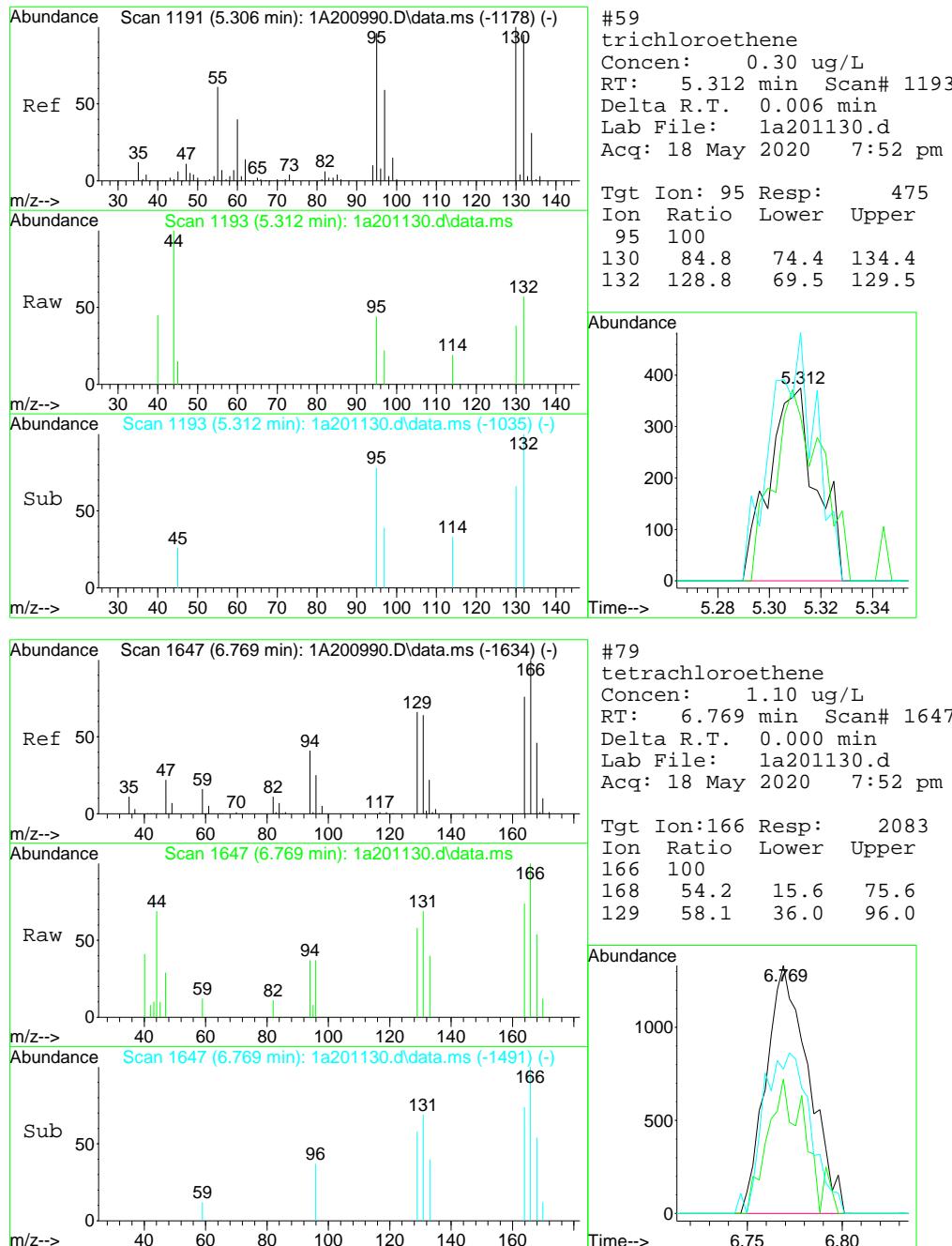
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201130.d
 Acq On : 18 May 2020 7:52 pm
 Operator : brittank
 Sample : jd7277-13
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 6 Sample Multiplier: 1
 Inst : MSDTEST1A
 Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:22:53 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration







Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201148.d
 Acq On : 19 May 2020 3:17 am
 Operator : brittank
 Sample : jd7277-14 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:41:28 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

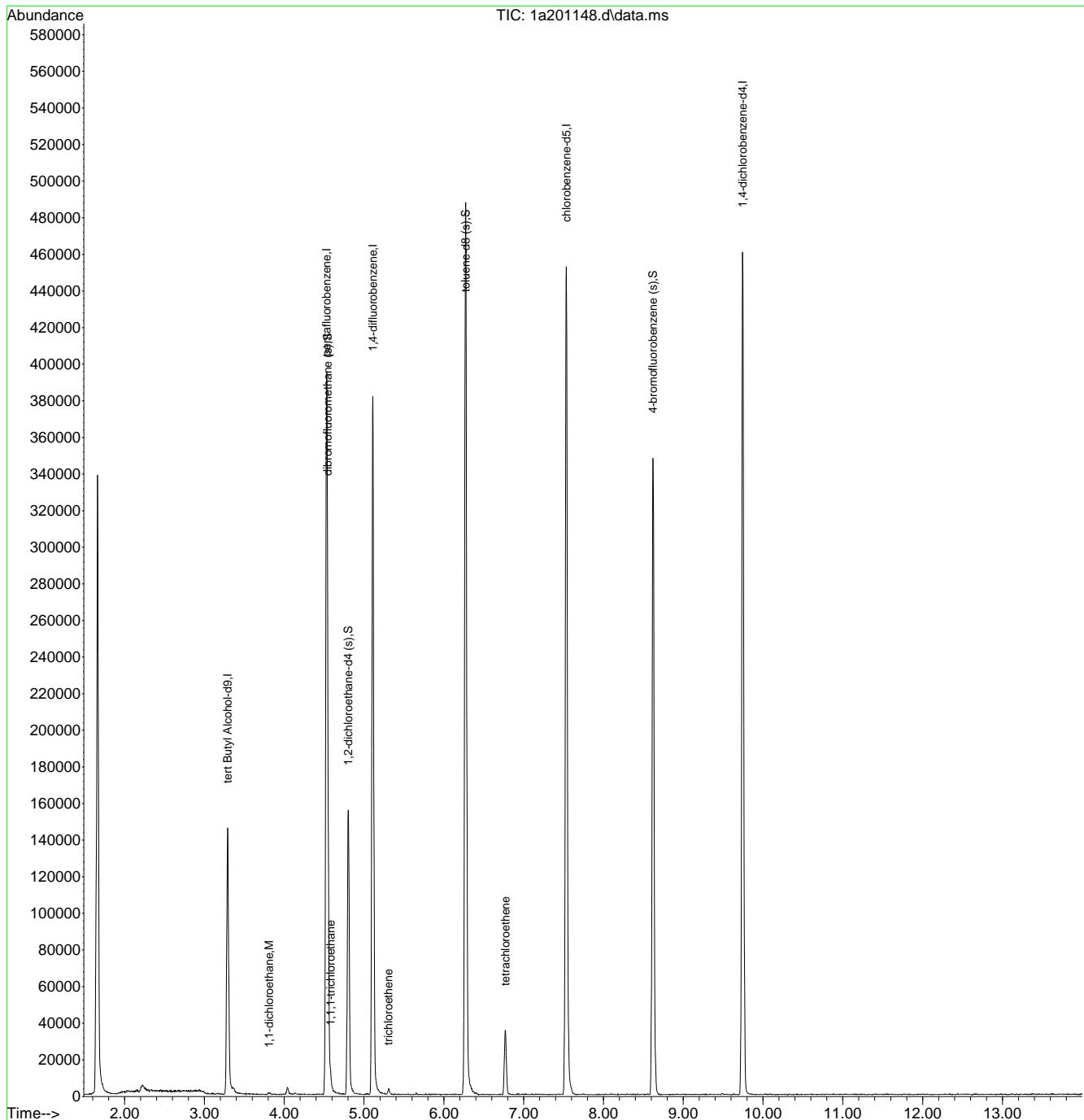
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.291	65	139285	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	182000	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	276825	50.00	ug/L	0.00
72) chlorobenzene-d5	7.536	117	260061	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.744	152	126378	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	82381	54.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	109.56%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	96713	53.22	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	106.44%	
73) toluene-d8 (s)	6.272	98	324842	51.01	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	102.02%	
97) 4-bromofluorobenzene (s)	8.621	95	118501	51.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	103.54%	
<hr/>						
Target Compounds						
31) 1,1-dichloroethane	3.810	63	787	0.32	ug/L	80
45) 1,1,1-trichloroethane	4.581	97	2943	1.30	ug/L	77
59) trichloroethene	5.306	95	800	0.51	ug/L	# 67
79) tetrachloroethene	6.769	166	10843	5.74	ug/L	95

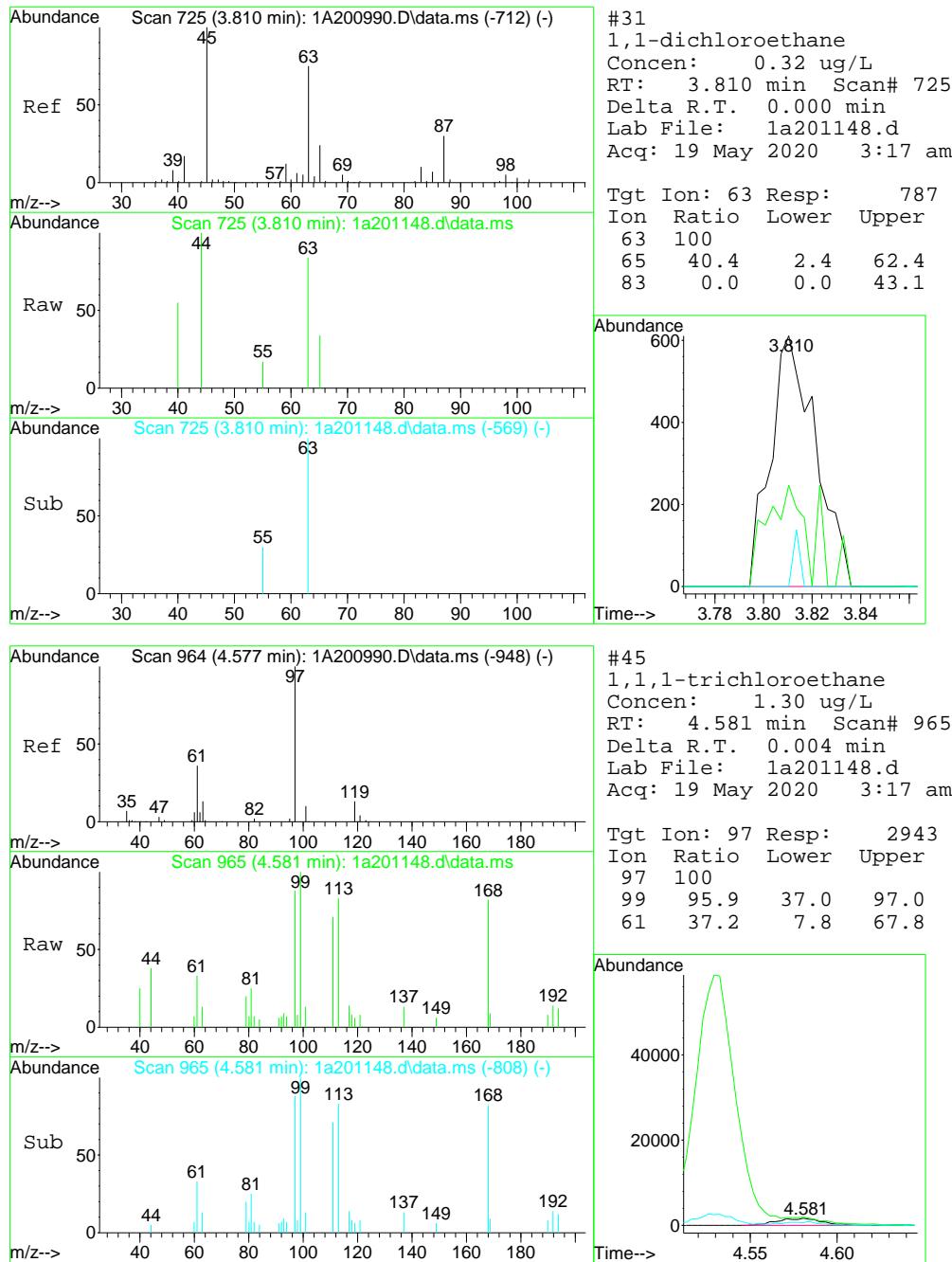
(#) = qualifier out of range (m) = manual integration (+) = signals summed

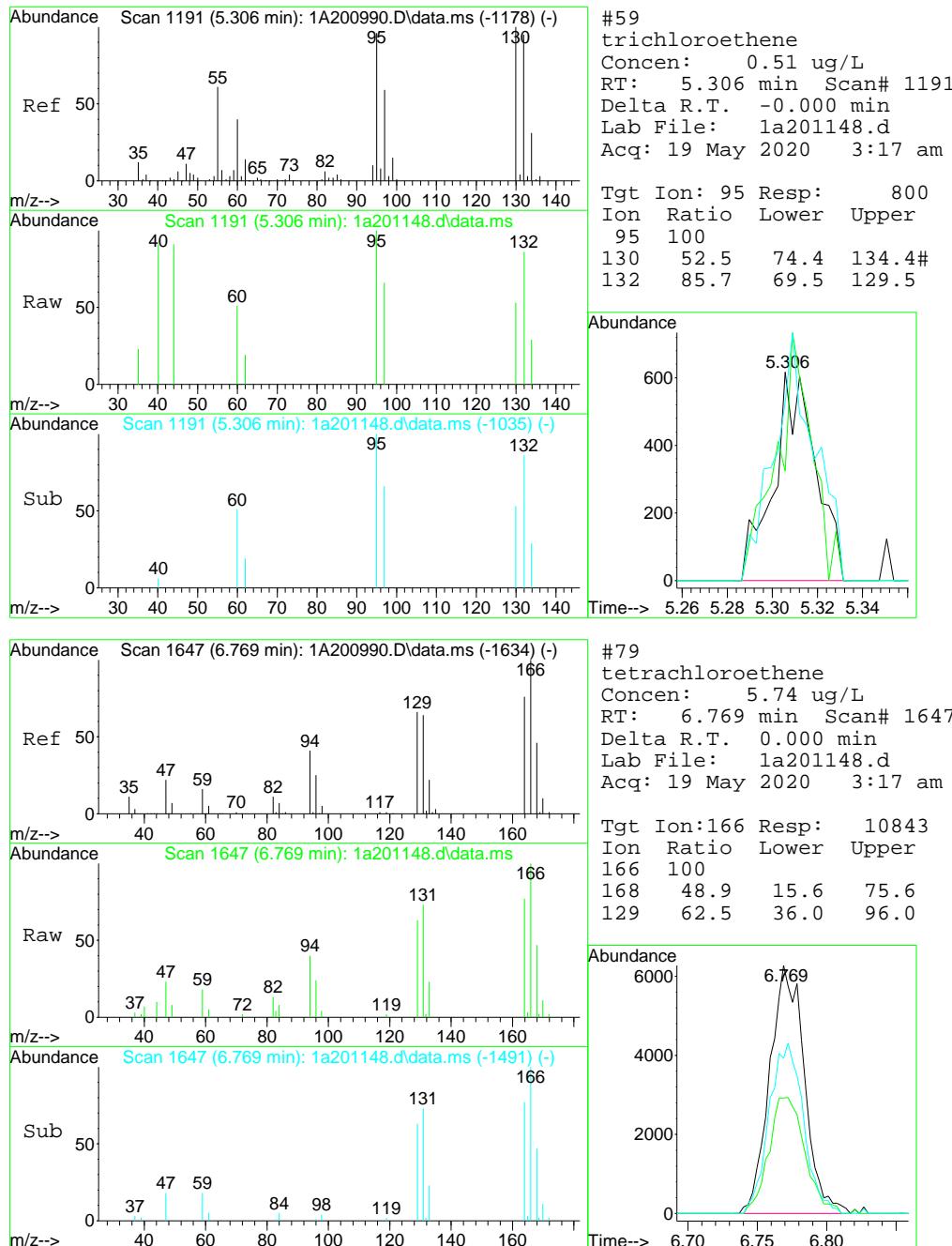
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201148.d
 Acq On : 19 May 2020 3:17 am
 Operator : brittank
 Sample : jd7277-14 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:41:28 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration







Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201149.d
 Acq On : 19 May 2020 3:42 am
 Operator : brittank
 Sample : jd7277-15 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:42:29 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	135526	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	185117	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	278819	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	259183	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.743	152	127583	50.00	ug/L	0.00

System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	82551	53.97	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 107.94%		
52) 1,2-dichloroethane-d4 (s)	4.802	65	95357	52.10	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 104.20%		
73) toluene-d8 (s)	6.271	98	324352	51.11	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 102.22%		
97) 4-bromofluorobenzene (s)	8.620	95	118197	51.15	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 102.30%		

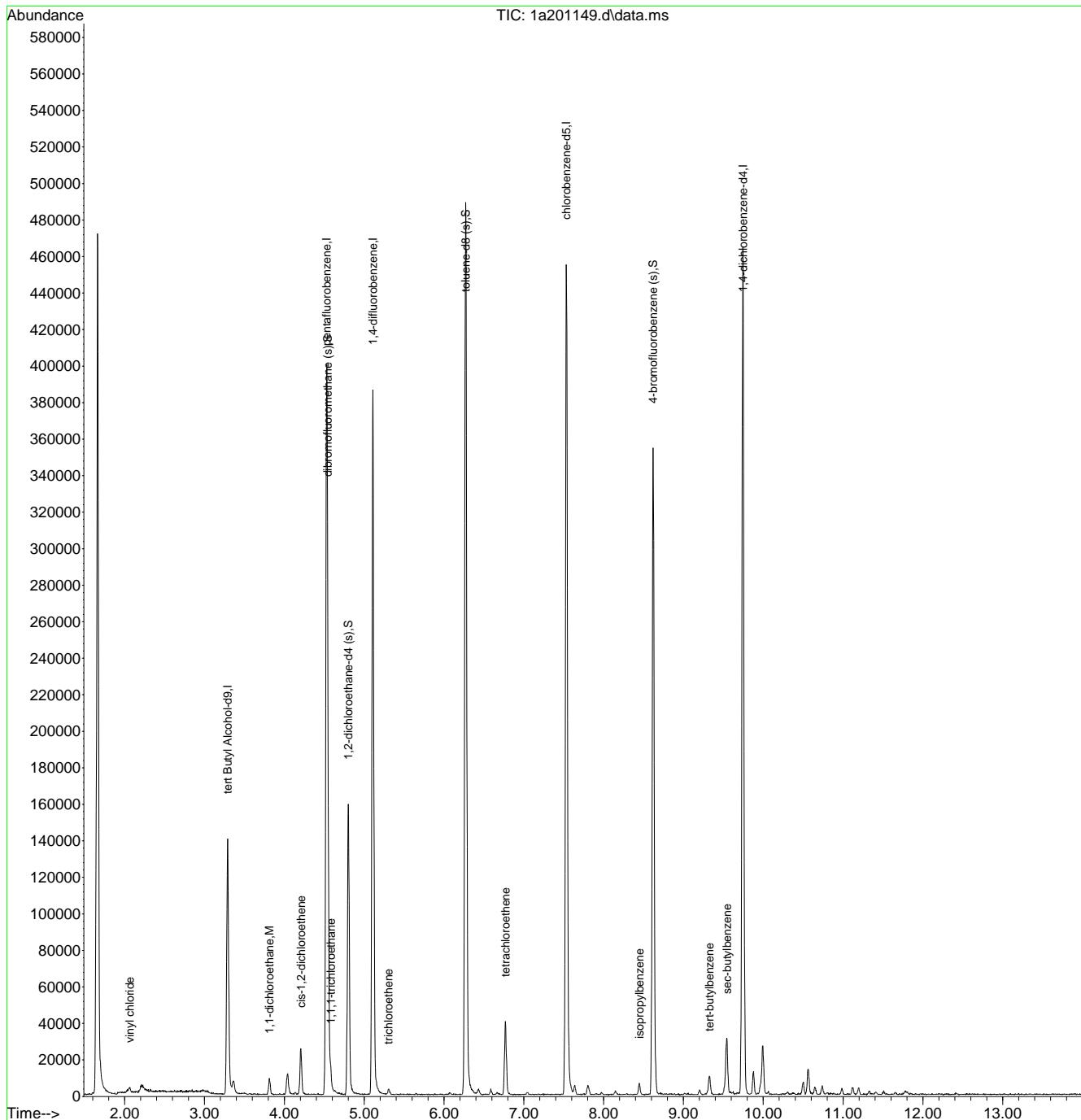
Target Compounds					Qvalue	
9) vinyl chloride	2.061	62	1305	0.77	ug/L	94
31) 1,1-dichloroethane	3.813	63	6522	2.64	ug/L	95
37) cis-1,2-dichloroethene	4.211	96	9251	5.76	ug/L	83
45) 1,1,1-trichloroethane	4.584	97	4430	1.92	ug/L	88
59) trichloroethene	5.306	95	798	0.50	ug/L	# 44
79) tetrachloroethene	6.769	166	11716	6.22	ug/L	95
94) isopropylbenzene	8.447	105	4344	0.58	ug/L	96
106) tert-butylbenzene	9.326	119	5297	1.01	ug/L	94
108) sec-butylbenzene	9.544	105	22188	3.00	ug/L	97

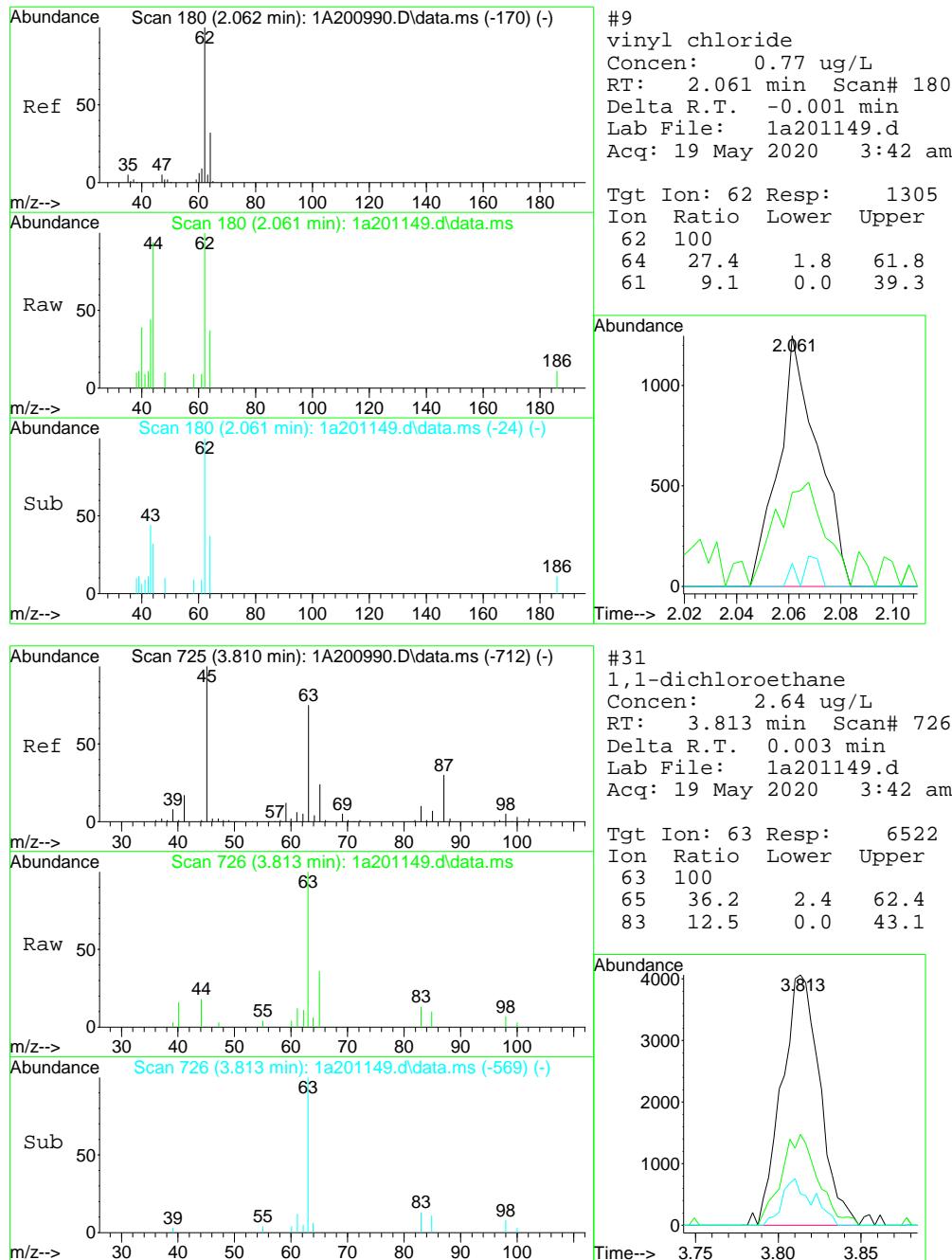
(#) = qualifier out of range (m) = manual integration (+) = signals summed

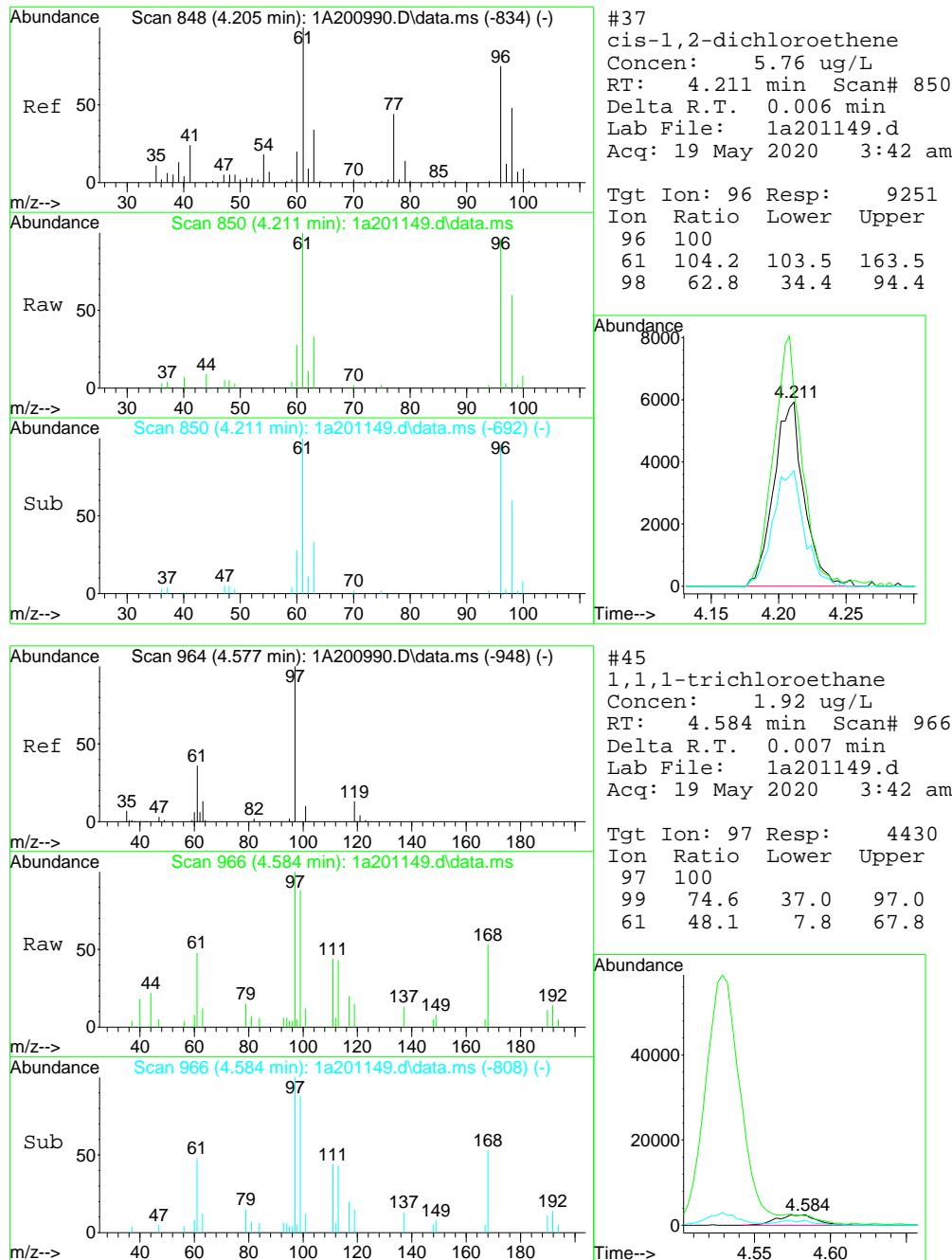
Quantitation Report (QT Reviewed)

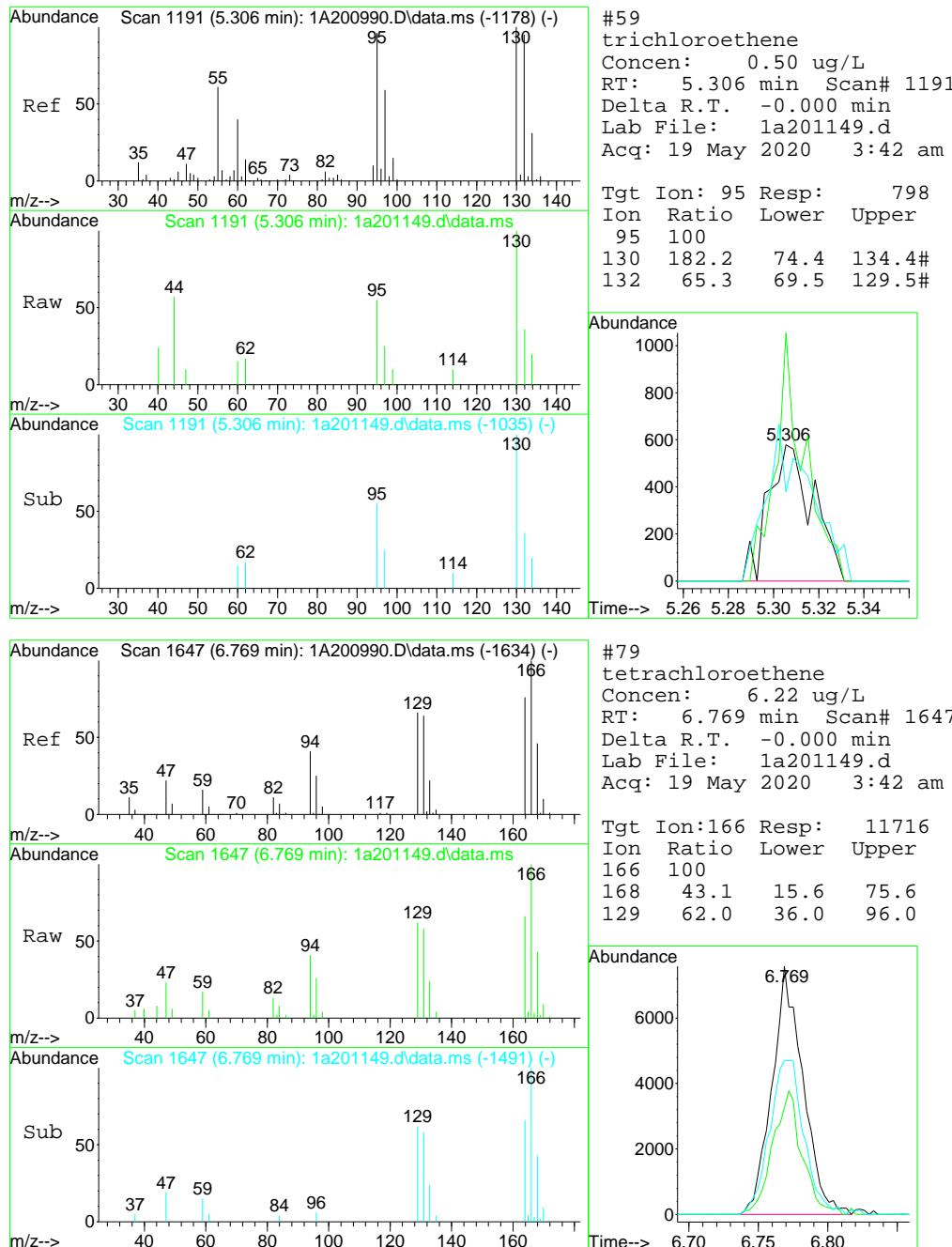
Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201149.d
 Acq On : 19 May 2020 3:42 am
 Operator : brittank
 Sample : jd7277-15 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 25 Sample Multiplier: 1

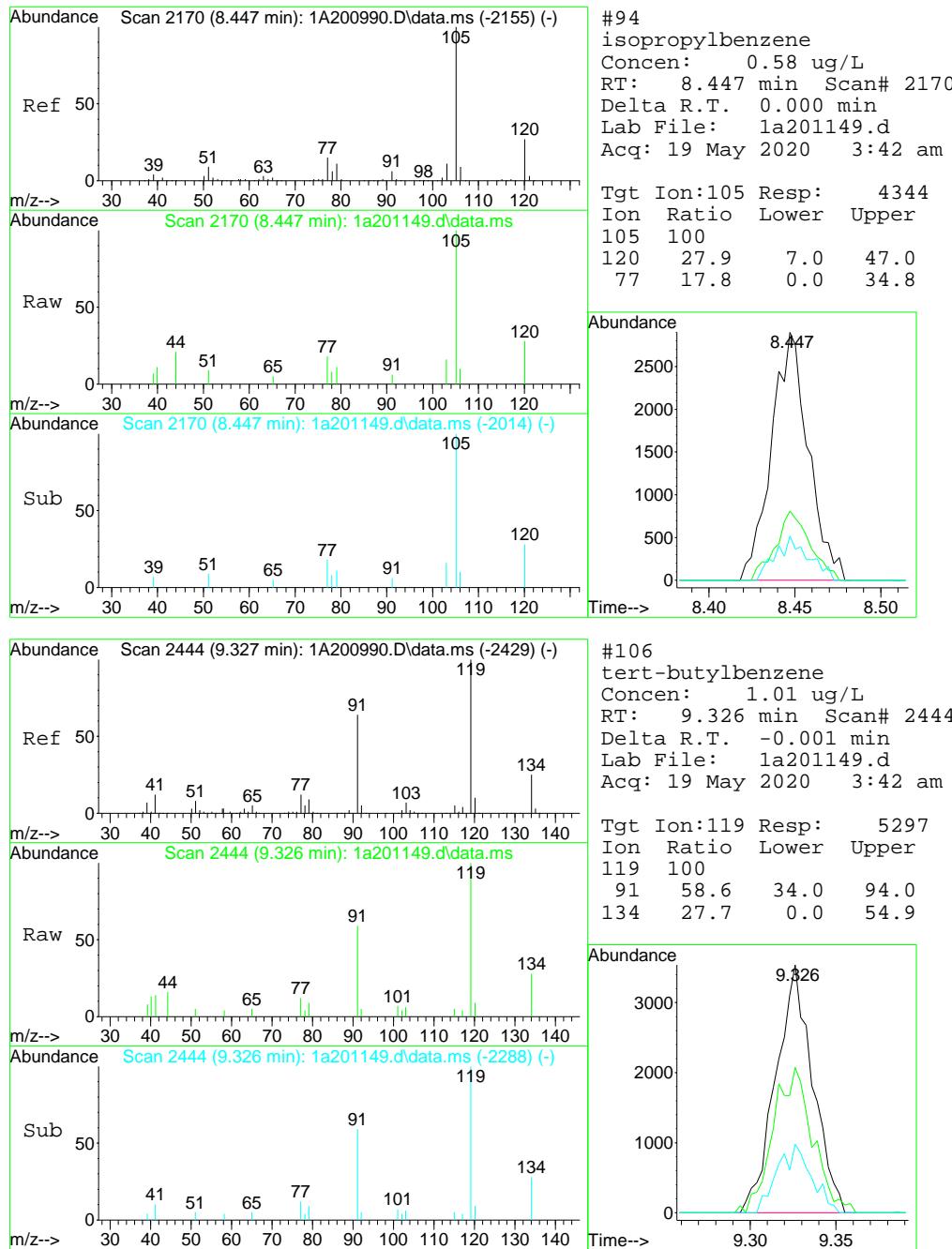
Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:42:29 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

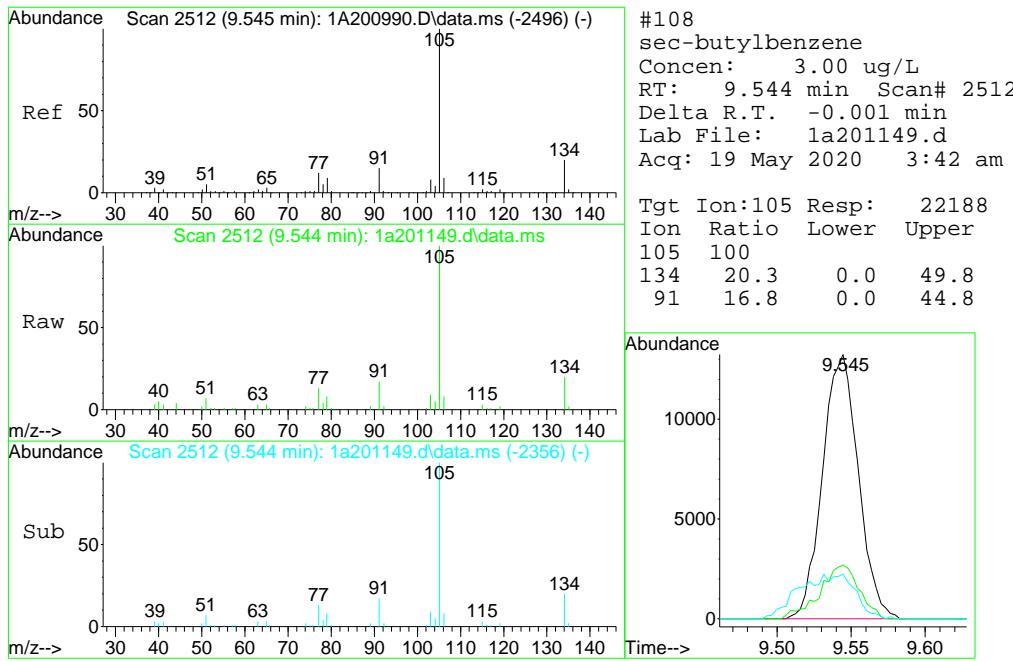












Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201135.d
 Acq On : 18 May 2020 9:56 pm
 Operator : brittank
 Sample : jd7277-16 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:29:05 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

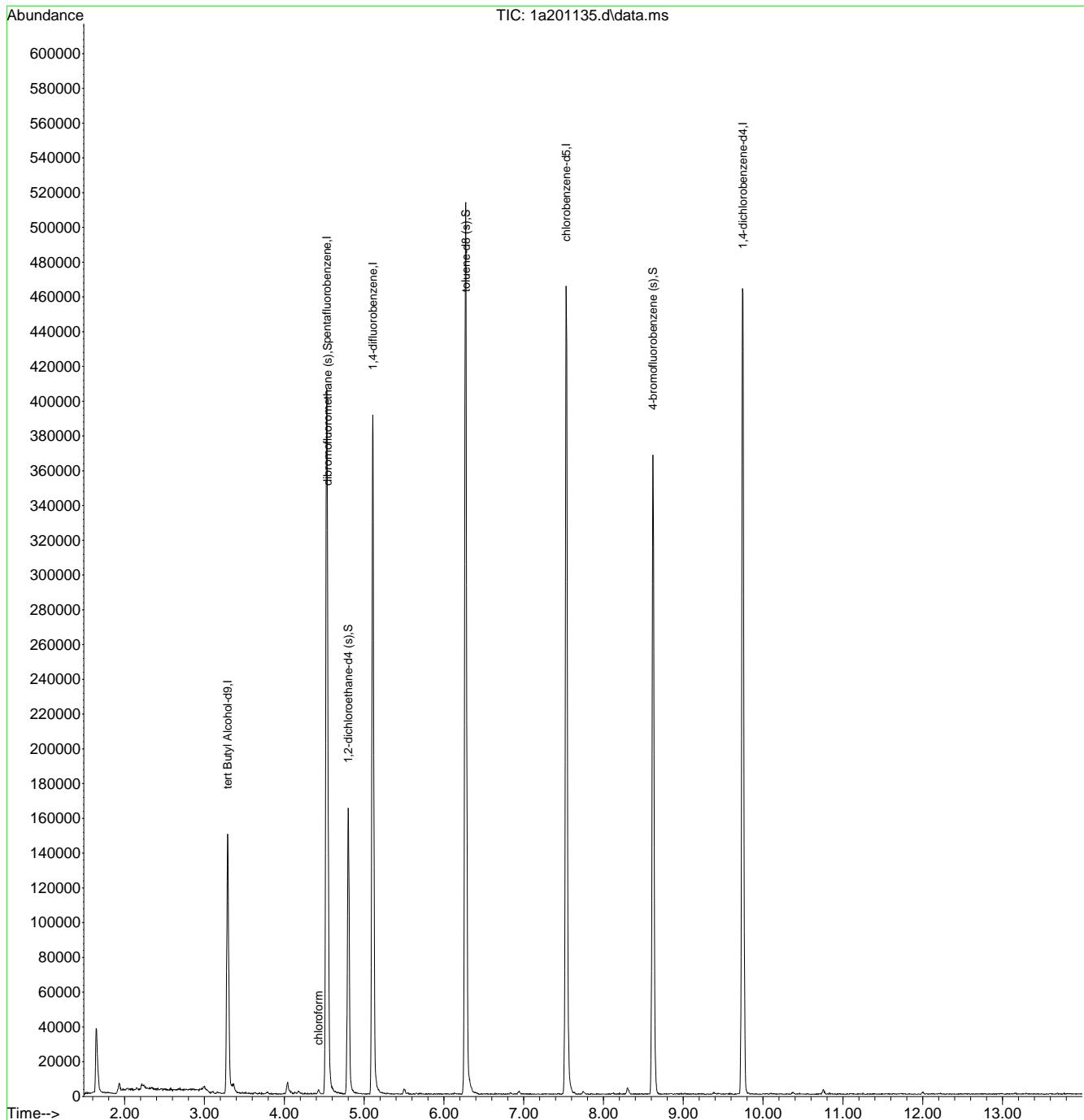
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	150346	500.00	ug/L	0.00
5) pentafluorobenzene	4.532	168	190328	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	288170	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	266817	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	132302	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	85541	54.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	108.78%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	98855	52.26	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	104.52%	
73) toluene-d8 (s)	6.275	98	335289	51.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	102.64%	
97) 4-bromofluorobenzene (s)	8.620	95	123619	51.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	103.18%	
<hr/>						
Target Compounds						
42) chloroform	4.426	83	1488	0.51	ug/L	89
<hr/>						

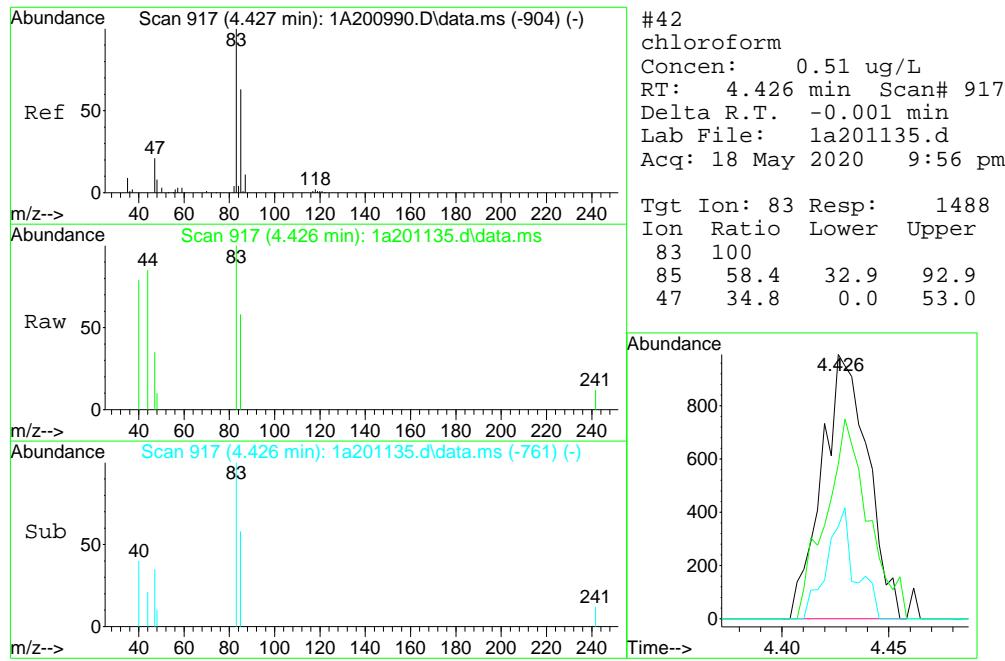
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201135.d
 Acq On : 18 May 2020 9:56 pm
 Operator : brittank
 Sample : jd7277-16 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:29:05 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201150.d
 Acq On : 19 May 2020 4:07 am
 Operator : brittank
 Sample : jd7277-17 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:43:08 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

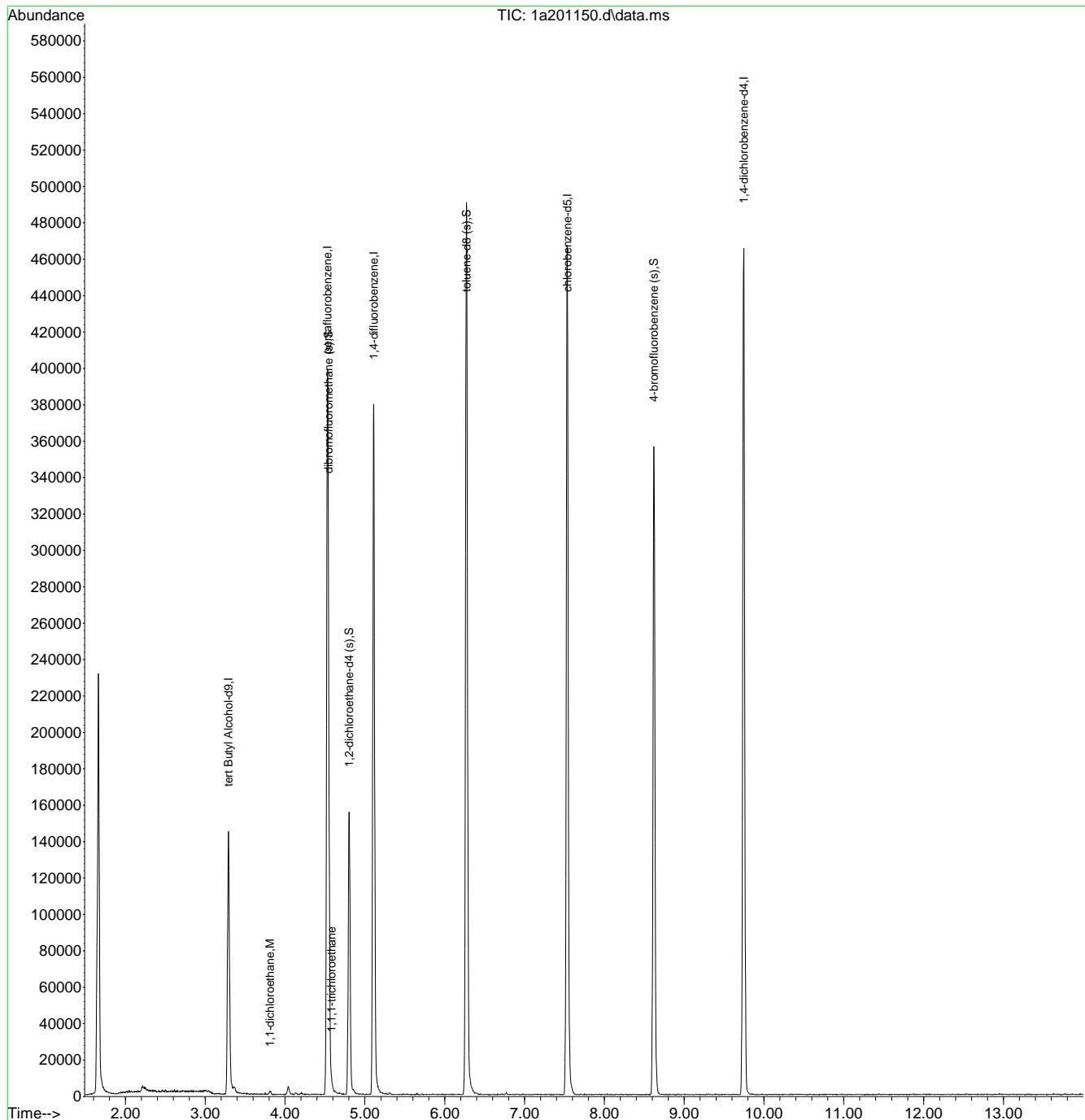
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	141122	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	183199	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	274516	50.00	ug/L	0.00
72) chlorobenzene-d5	7.536	117	258013	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	128888	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	81702	53.97	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	107.94%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	95282	52.87	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	105.74%	
73) toluene-d8 (s)	6.272	98	321434	50.88	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	101.76%	
97) 4-bromofluorobenzene (s)	8.620	95	118418	50.73	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	101.46%	
<hr/>						
Target Compounds						
31) 1,1-dichloroethane	3.810	63	1577	0.64	ug/L	84
45) 1,1,1-trichloroethane	4.580	97	1162	0.51	ug/L	72
<hr/>						

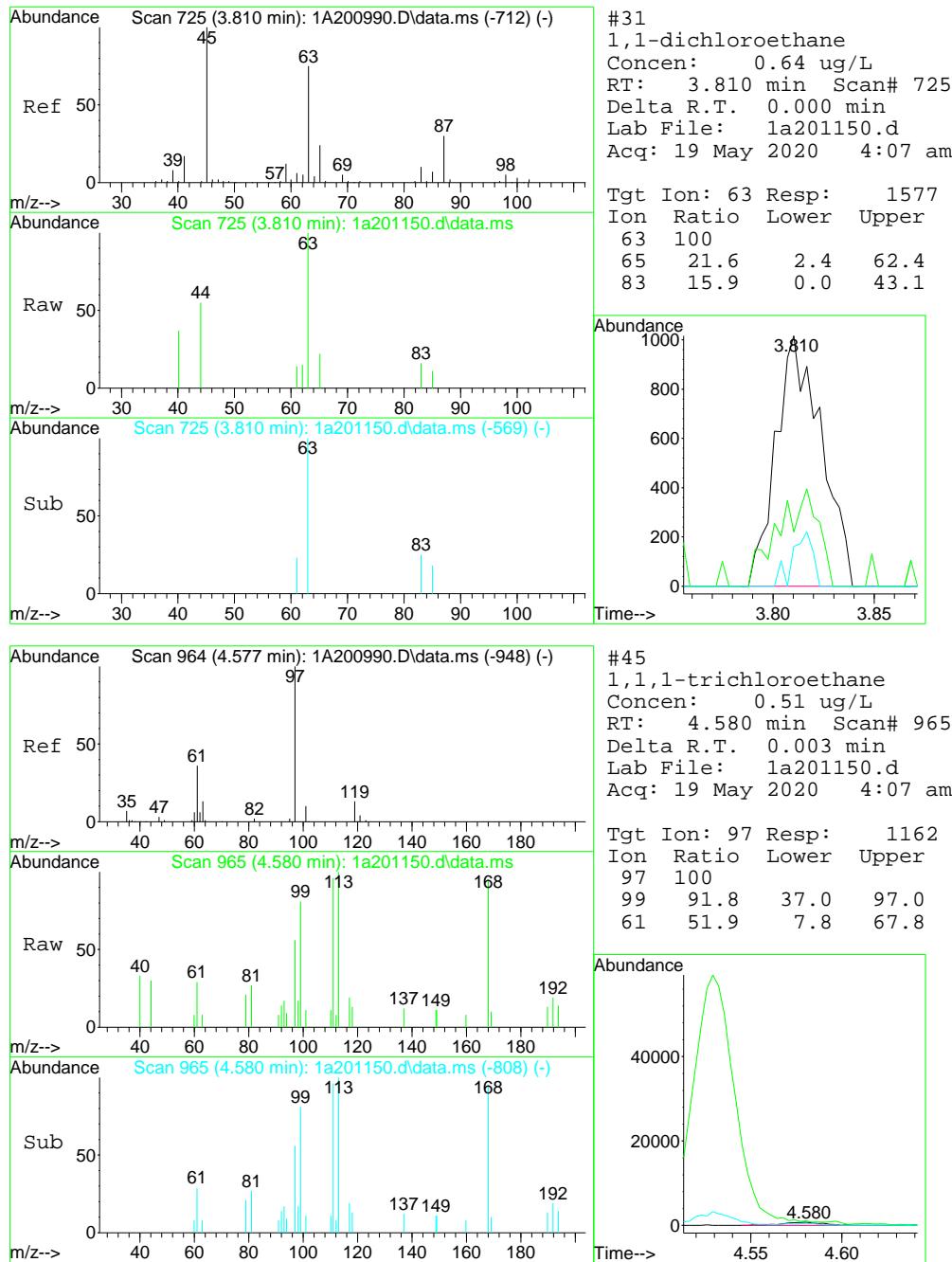
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201150.d
 Acq On : 19 May 2020 4:07 am
 Operator : brittank
 Sample : jd7277-17 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:43:08 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201151.d
 Acq On : 19 May 2020 4:31 am
 Operator : brittank
 Sample : jd7277-18 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:44:05 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

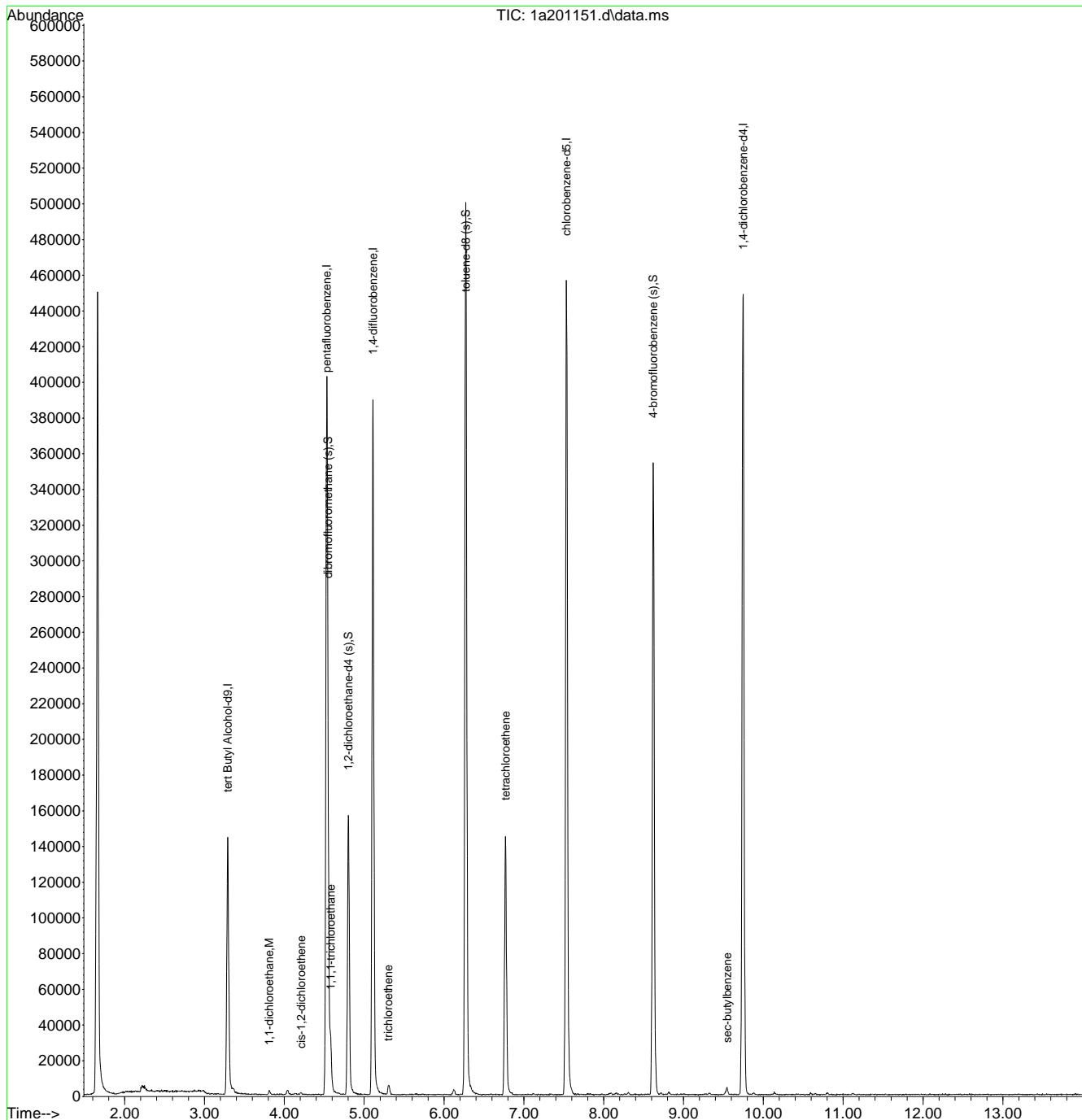
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.291	65	138917	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	184956	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	278616	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	258515	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	126157	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.545	113	82117	53.73	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	107.46%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	95506	52.22	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	104.44%	
73) toluene-d8 (s)	6.272	98	322500	50.95	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	101.90%	
97) 4-bromofluorobenzene (s)	8.621	95	118103	51.69	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	103.38%	
<hr/>						
Target Compounds						
31) 1,1-dichloroethane	3.810	63	1632	0.66	ug/L	89
37) cis-1,2-dichloroethene	4.212	96	424	0.26	ug/L #	54
45) 1,1,1-trichloroethane	4.577	97	14237	6.18	ug/L	95
59) trichloroethene	5.303	95	1624	1.02	ug/L	84
79) tetrachloroethene	6.772	166	43431	23.13	ug/L	98
108) sec-butylbenzene	9.545	105	2832	0.39	ug/L	97
<hr/>						

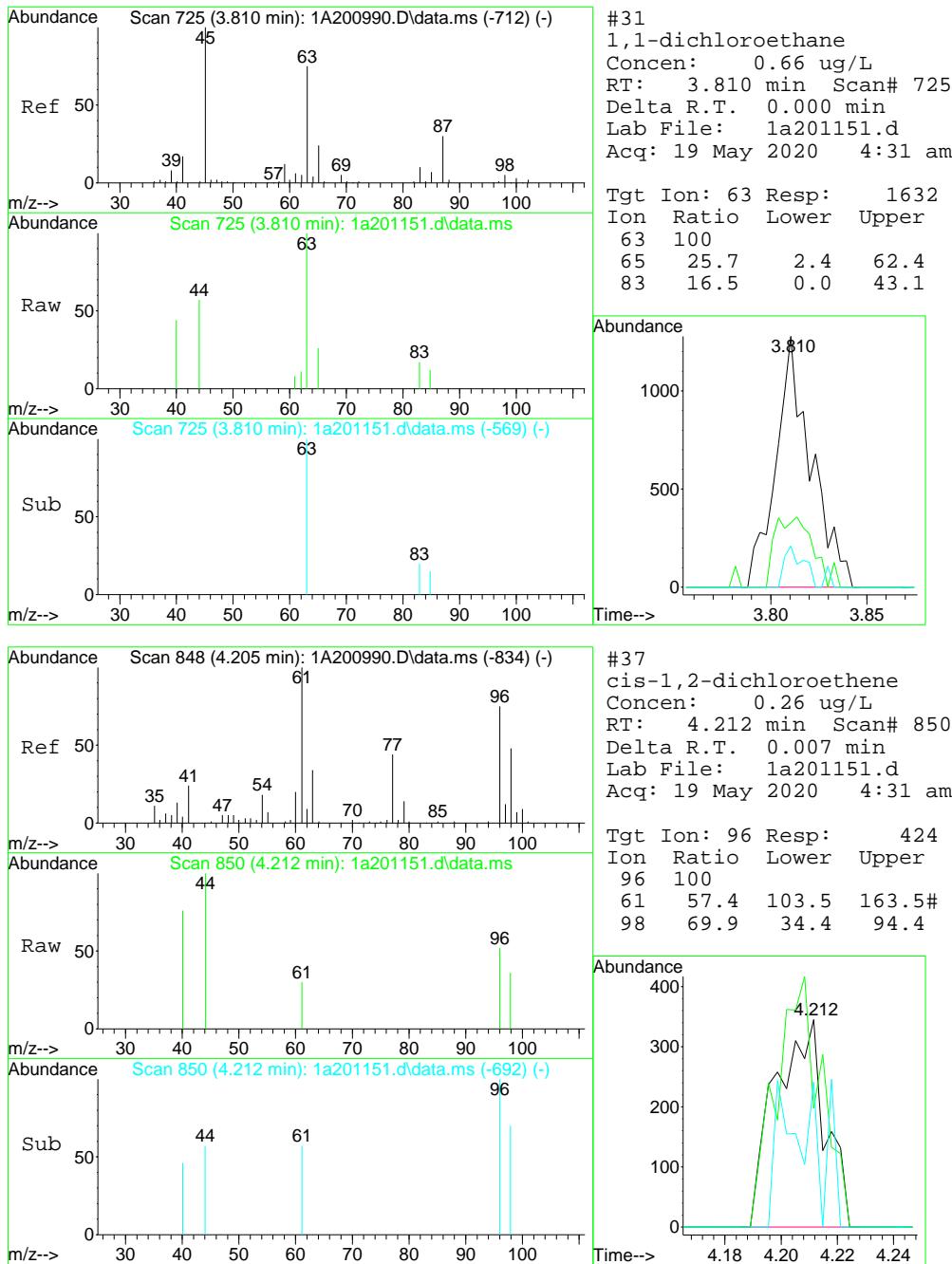
(#) = qualifier out of range (m) = manual integration (+) = signals summed

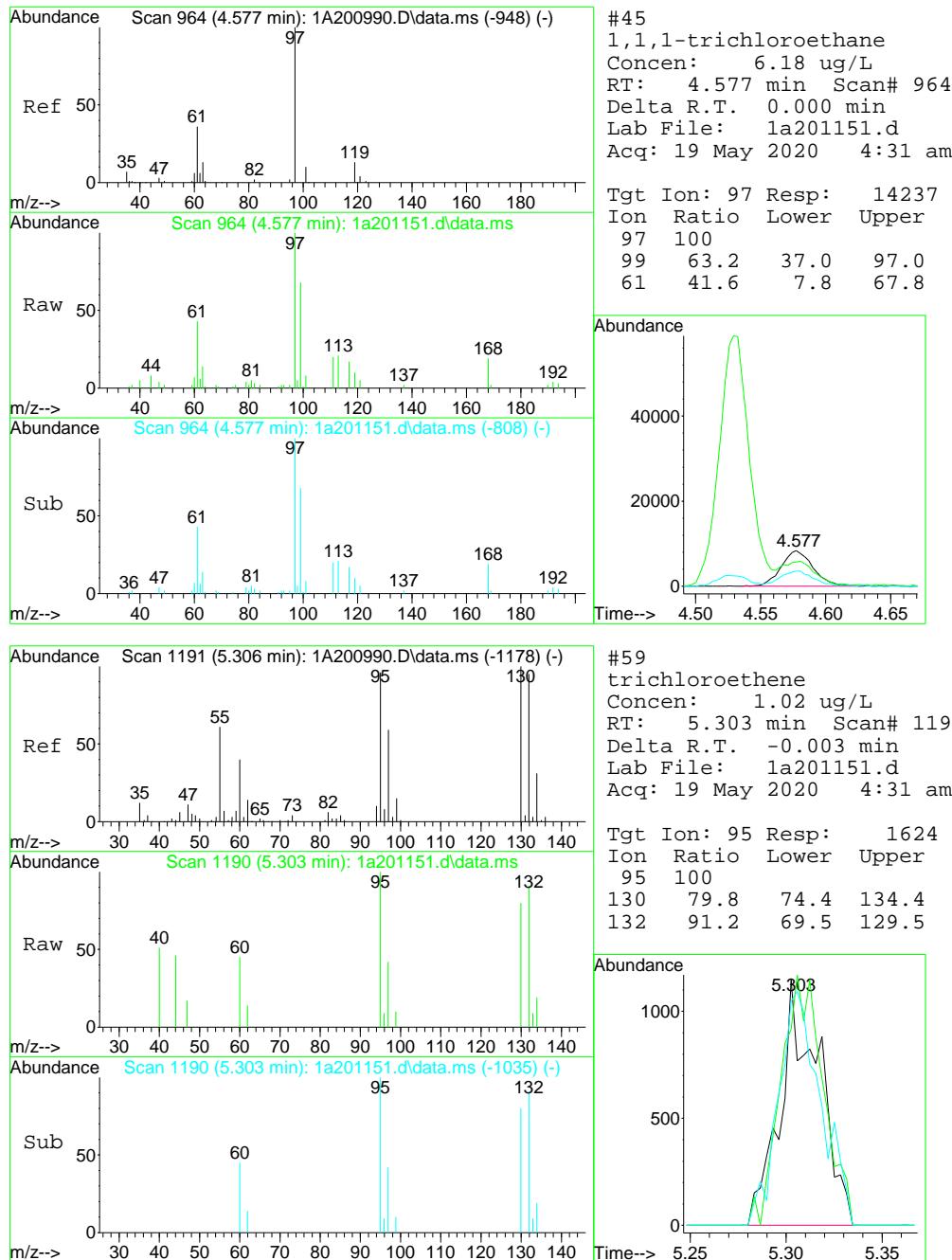
Quantitation Report (QT Reviewed)

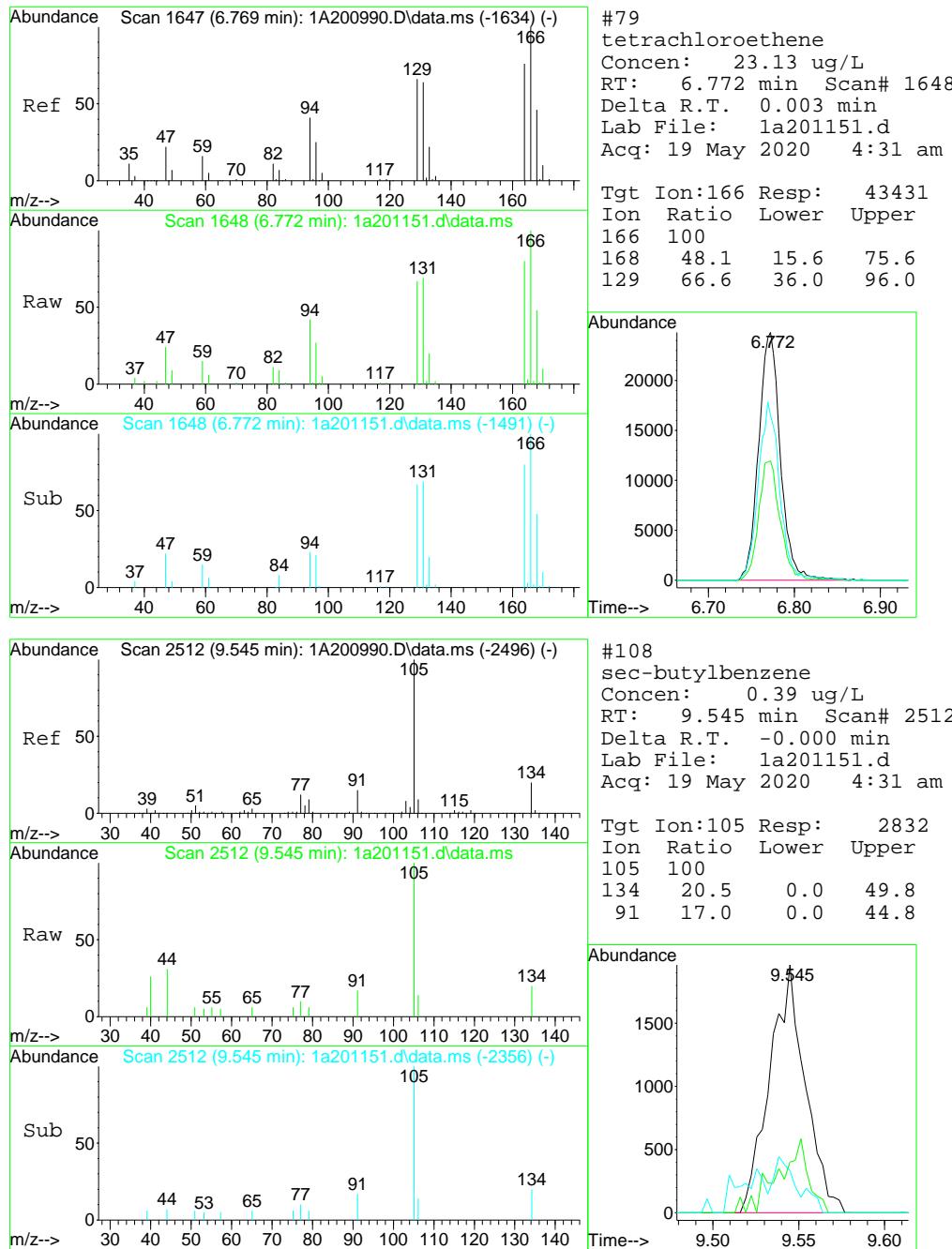
Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201151.d
 Acq On : 19 May 2020 4:31 am
 Operator : brittank
 Sample : jd7277-18 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:44:05 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration









Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201136.d
 Acq On : 18 May 2020 10:20 pm
 Operator : brittank
 Sample : jd7277-19 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 12 Sample Multiplier: 1

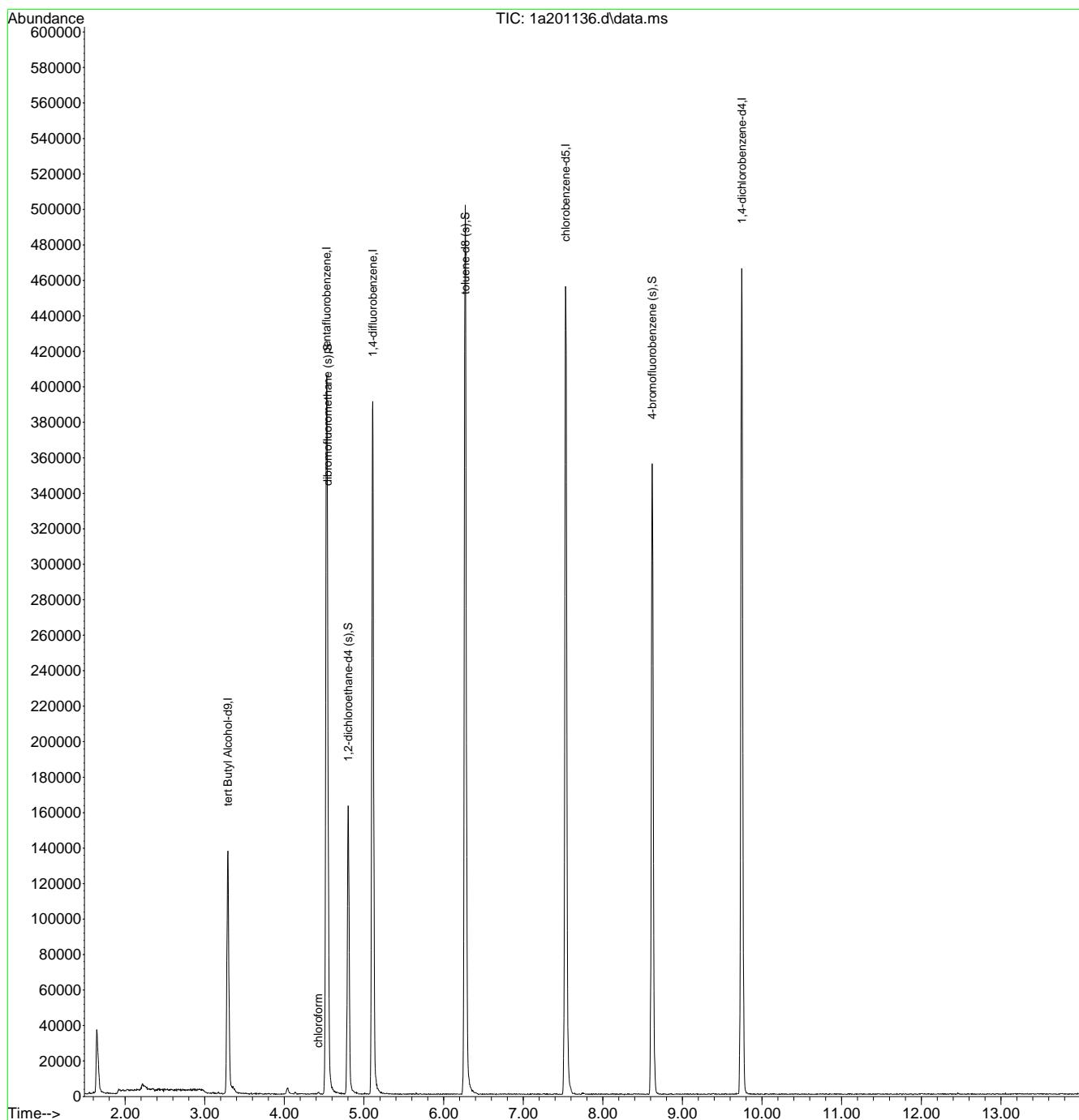
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 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:30:53 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

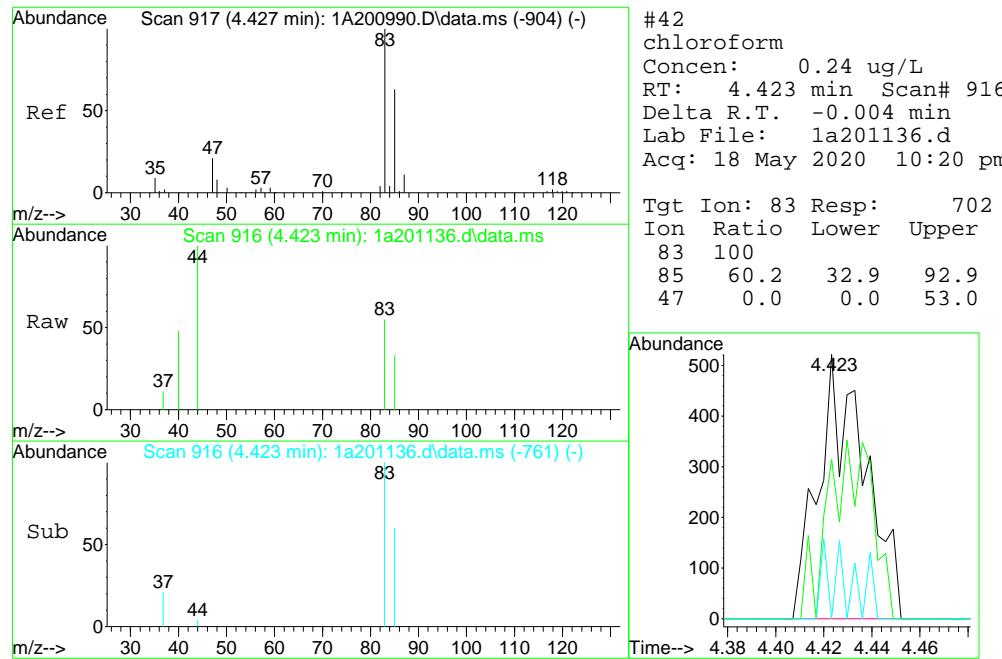
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.291	65	136551	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	191040	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	287217	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	264166	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.744	152	129200	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	84650	53.63	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	107.26%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	97335	51.62	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	103.24%	
73) toluene-d8 (s)	6.272	98	328420	50.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	101.54%	
97) 4-bromofluorobenzene (s)	8.620	95	119974	51.27	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	102.54%	
<hr/>						
Target Compounds						
42) chloroform	4.423	83	702	0.24	ug/L	85
<hr/>						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201136.d
 Acq On : 18 May 2020 10:20 pm
 Operator : brittank
 Sample : jd7277-19
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 12 Sample Multiplier: 1
 Inst : MSDTEST1A
 Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:30:53 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration





7.119

7

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201129.d
 Acq On : 18 May 2020 7:27 pm
 Operator : brittank
 Sample : mb Inst : MSDTEST1A
 Misc : MS37677,V1A8674,w,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:20:58 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.291	65	135851	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	184432	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	281094	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	255354	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.744	152	124905	50.00	ug/L	0.00

System Monitoring Compounds

43) dibromofluoromethane (s)	4.542	113	80706	52.96	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	= 105.92%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	93423	50.63	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	= 101.26%	
73) toluene-d8 (s)	6.272	98	318878	51.00	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	= 102.00%	
97) 4-bromofluorobenzene (s)	8.621	95	116454	51.48	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	= 102.96%	

Target Compounds

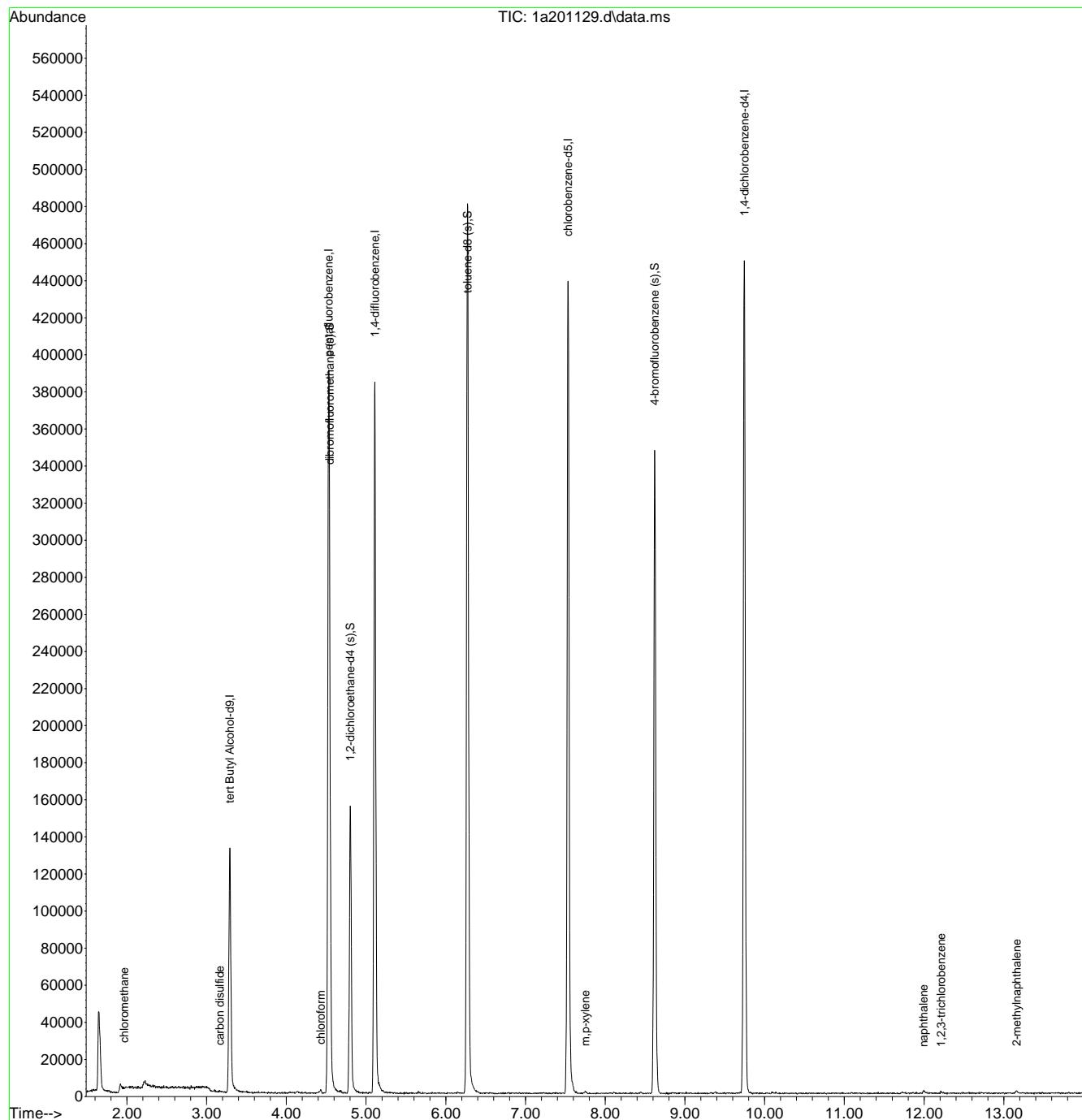
				Qvalue	
8) chloromethane	1.965	50	406	0.28	ug/L 92
22) carbon disulfide	3.162	76	811	0.25	ug/L # 1
42) chloroform	4.430	83	1076	0.38	ug/L 81
88) m,p-xylene	7.748	106	340	0.12	ug/L # 79
118) naphthalene	11.993	128	1730	0.31	ug/L 69
119) 1,2,3-trichlorobenzene	12.211	180	439	0.27	ug/L # 65
123) 2-methylnaphthalene	13.161	142	839	0.37	ug/L # 79

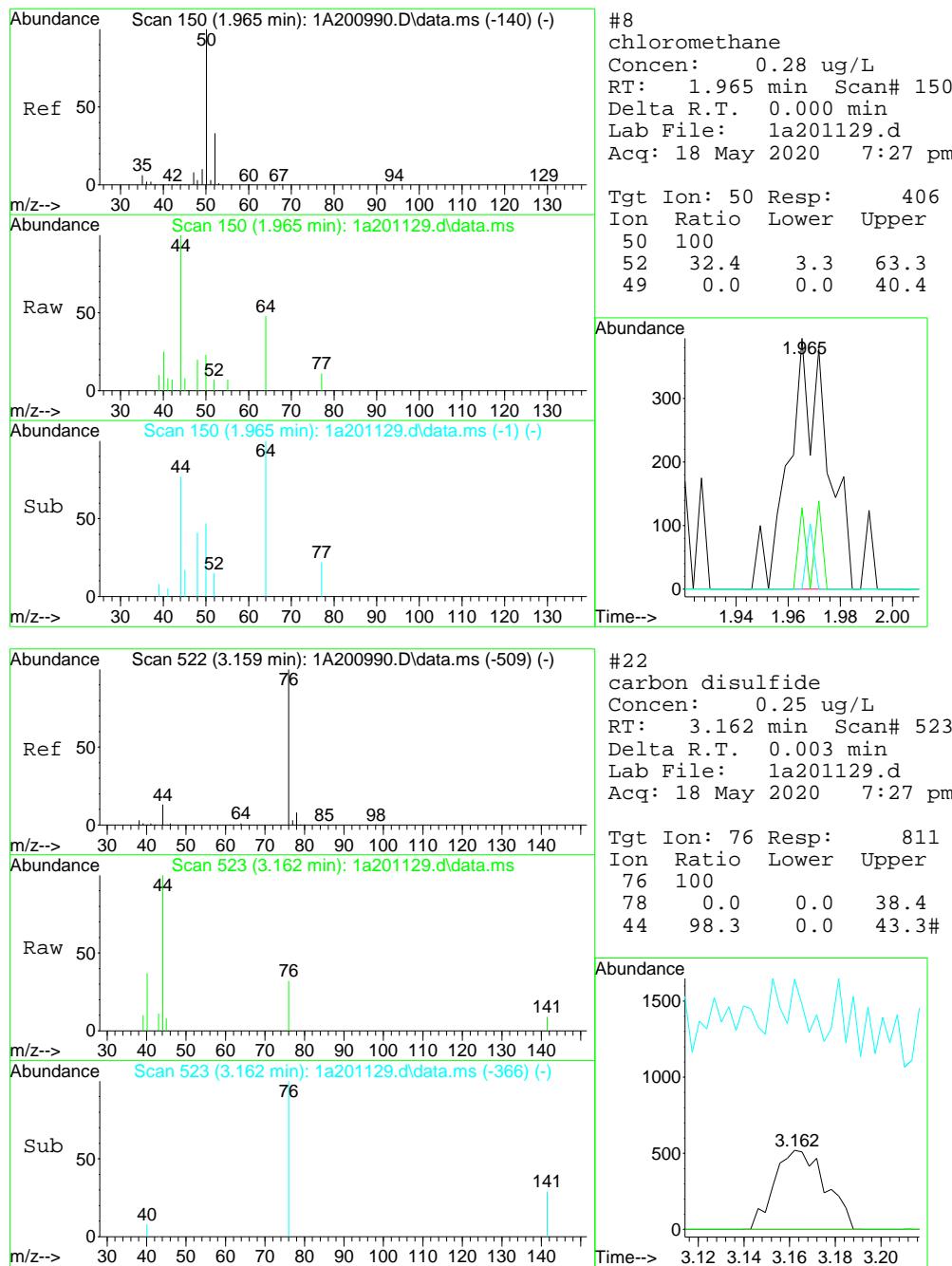
(#) = qualifier out of range (m) = manual integration (+) = signals summed

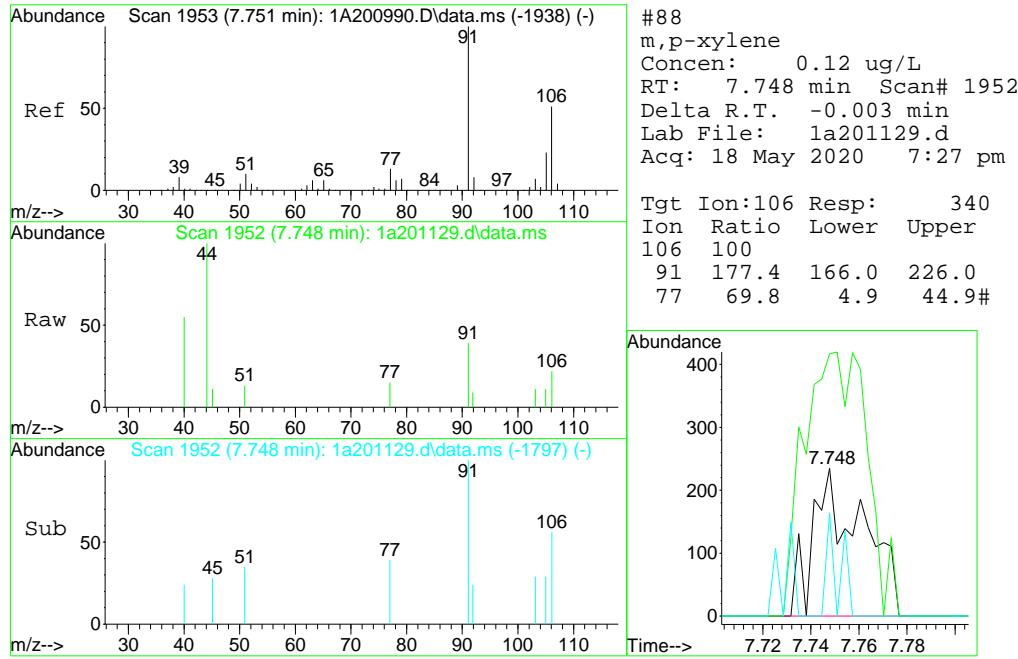
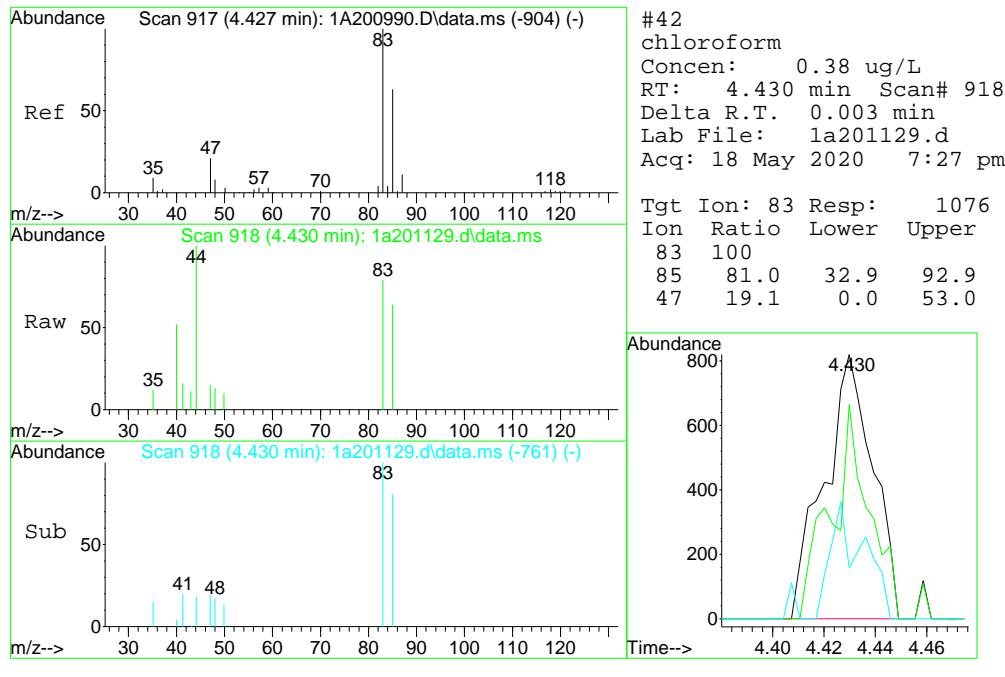
Quantitation Report (QT/LSC Reviewed)

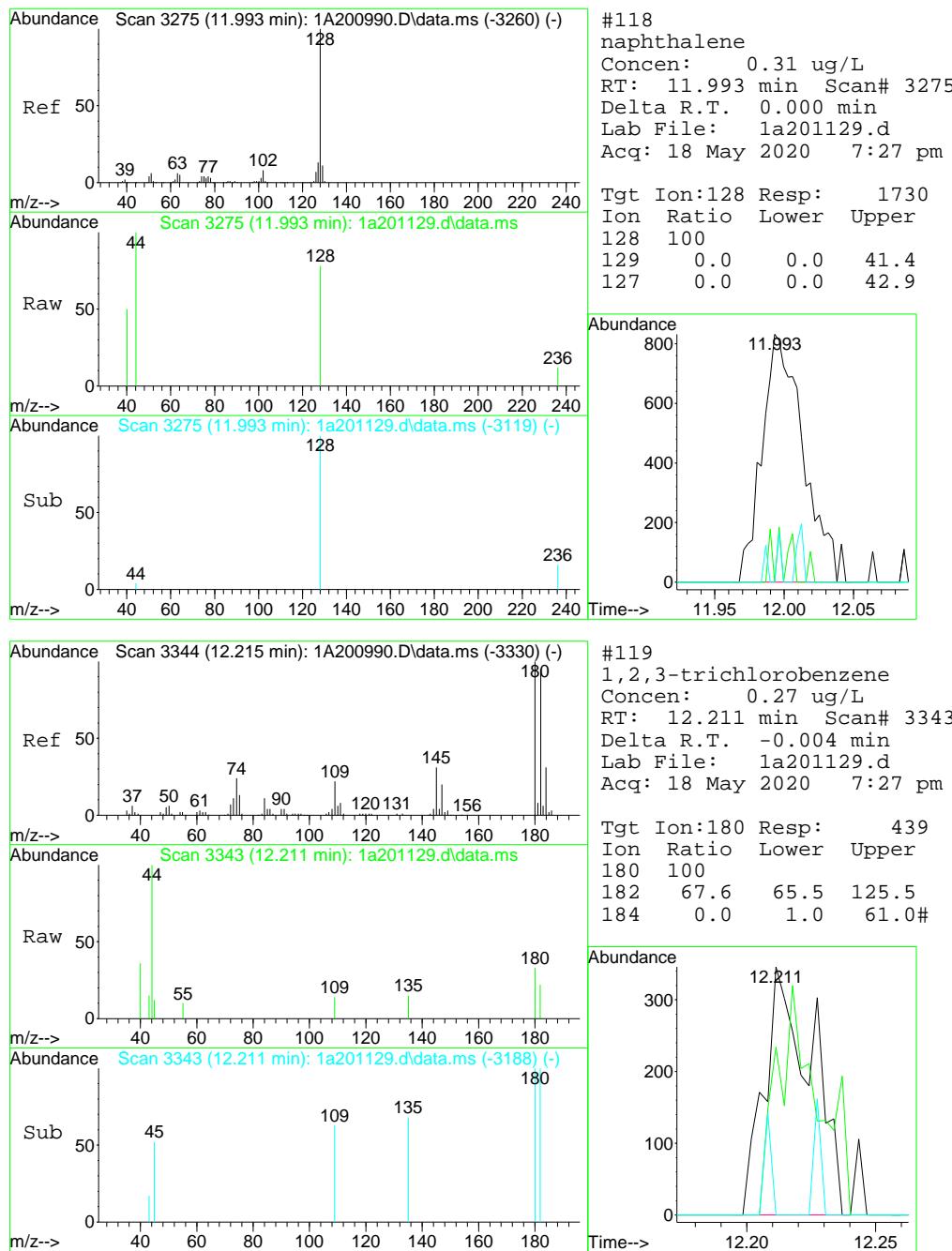
Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201129.d
 Acq On : 18 May 2020 7:27 pm
 Operator : brittank
 Sample : mb Inst : MSDTEST1A
 Misc : MS37677,V1A8674,w,,,1
 ALS Vial : 5 Sample Multiplier: 1

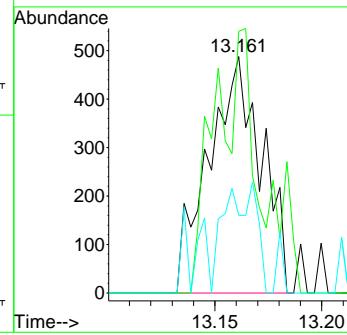
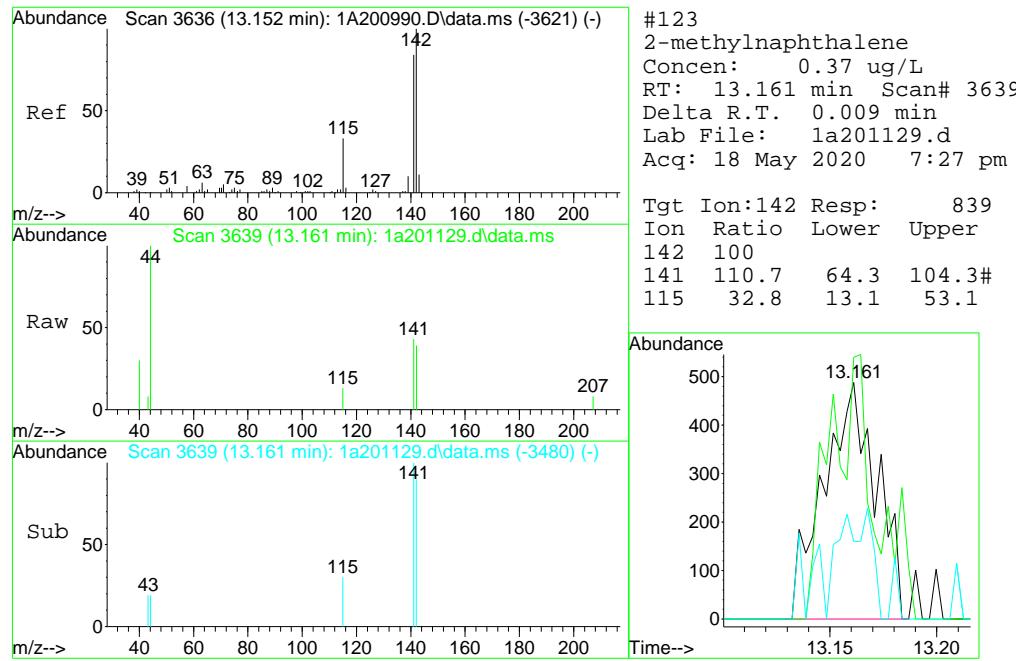
Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:20:58 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration











Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201127.d
 Acq On : 18 May 2020 6:38 pm
 Operator : brittank
 Sample : bs Inst : MSDTEST1A
 Misc : MS43164,V1A8674,w,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 18 19:02:06 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.291	65	138763	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	180374	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	270915	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	253876	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.744	152	124810	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	78730	52.82	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 105.64%		
52) 1,2-dichloroethane-d4 (s)	4.802	65	95469	53.68	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 107.36%		
73) toluene-d8 (s)	6.272	98	309437	49.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 99.56%		
97) 4-bromofluorobenzene (s)	8.621	95	117361	51.92	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 103.84%		
Target Compounds						
				Qvalue		
2) 1,4-dioxane	5.550	88	40137	1124.23	ug/L	98
3) ethanol	2.694	45	167903	4832.38	ug/L	99
4) tertiary butyl alcohol	3.348	59	87889	228.31	ug/L	99
7) dichlorodifluoromethane	1.805	85	99576	53.75	ug/L	98
8) chloromethane	1.965	50	84731	59.38	ug/L	100
9) vinyl chloride	2.062	62	91723	55.69	ug/L	99
10) bromomethane	2.325	94	24773	56.23	ug/L	99
11) chloroethane	2.408	64	48748	53.77	ug/L	97
12) vinyl bromide	2.556	106	45305	52.15	ug/L	96
13) trichlorofluoromethane	2.604	101	109836	52.45	ug/L	99
14) ethyl ether	2.793	74	38899	52.20	ug/L	95
15) acrolein	2.899	56	21880	57.32	ug/L	97
16) freon 113	2.970	151	49261	50.87	ug/L	94
17) 1,1-dichloroethene	2.979	96	60192	51.23	ug/L	95
18) acetone	2.989	58	38609	209.25	ug/L	87
19) acetonitrile	3.191	40	77744	563.87	ug/L	96
20) iodomethane	3.098	142	44538	69.52	ug/L	99
21) iso-butyl alcohol	4.680	43	63400	577.11	ug/L	99
22) carbon disulfide	3.162	76	153551	48.47	ug/L	98
23) methylene chloride	3.316	84	70671	51.63	ug/L	94
24) methyl acetate	3.204	74	18810	56.63	ug/L	98
25) methyl tert butyl ether	3.493	73	228399	53.38	ug/L	99
26) trans-1,2-dichloroethene	3.509	96	68641	50.47	ug/L	93
27) hexane	3.688	57	108505	50.11	ug/L	99
28) di-isopropyl ether	3.801	45	251233	54.99	ug/L	99
29) ethyl tert-butyl ether	4.054	59	250036	53.61	ug/L	98
30) 2-butanone	4.179	72	55793	215.81	ug/L #	74
31) 1,1-dichloroethane	3.810	63	131569	54.62	ug/L	99
32) chloroprene	3.865	53	108123	53.14	ug/L	98
33) acrylonitrile	3.470	53	40510	57.37	ug/L	93
34) vinyl acetate	3.778	86	18335	53.61	ug/L #	81
35) ethyl acetate	4.186	45	16857	52.57	ug/L #	71
36) 2,2-dichloropropane	4.218	77	113609	55.26	ug/L	97
37) cis-1,2-dichloroethene	4.205	96	80468	51.40	ug/L	97
38) propionitrile	4.228	54	174015	562.10	ug/L	97
39) methyl acrylate	4.231	85	16206	52.89	ug/L	96
40) bromochloromethane	4.375	128	37621	51.12	ug/L	91
41) tetrahydrofuran	4.388	72	16644	53.90	ug/L	93
42) chloroform	4.430	83	132020	48.20	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201127.d
 Acq On : 18 May 2020 6:38 pm
 Operator : brittank
 Sample : bs Inst : MSDTEST1A
 Misc : MS43164,V1A8674,w,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 18 19:02:06 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
44) methacrylonitrile	4.337	67	42297	54.08	ug/L	90
45) 1,1,1-trichloroethane	4.577	97	115981	51.66	ug/L	97
46) cyclohexane	4.635	84	107592	52.11	ug/L	97
47) 1,1-dichloropropene	4.686	75	97271	50.05	ug/L	99
48) carbon tetrachloride	4.690	117	97587	50.34	ug/L	98
49) isopropyl acetate	4.799	87	23035	53.85	ug/L	94
50) tert amyl alcohol	4.773	55	28773	261.15	ug/L	97
53) tert-amyl methyl ether	4.892	73	239480	51.03	ug/L	99
54) 2,2,4-trimethylpentane	4.895	57	226059	49.06	ug/L	99
55) n-butyl alcohol	5.161	56	237698	3049.47	ug/L	99
56) benzene	4.834	78	291169	48.94	ug/L	99
57) heptane	5.004	57	53475	49.40	ug/L	94
58) 1,2-dichloroethane	4.857	62	102814	48.34	ug/L	99
59) trichloroethene	5.306	95	74866	48.57	ug/L	95
60) ethyl acrylate	5.322	55	137464	53.09	ug/L	97
61) 2-nitropropane	5.867	41	31327	56.44	ug/L	86
62) 2-chloroethyl vinyl ether	5.890	63	243240	239.38	ug/L	97
63) methyl methacrylate	5.502	100	26908	50.89	ug/L	#
64) 1,2-dichloropropane	5.511	63	78713	53.46	ug/L	99
65) methylcyclohexane	5.502	83	122110	46.42	ug/L	94
66) dibromomethane	5.582	93	46456	50.62	ug/L	95
67) bromodichloromethane	5.697	83	107028	51.55	ug/L	97
68) cis-1,3-dichloropropene	6.041	75	128284	55.77	ug/L	97
69) epichlorohydrin	5.948	57	43036	272.48	ug/L	94
70) 4-methyl-2-pentanone	6.140	58	178239	212.78	ug/L	95
71) 3-methyl-1-butanol	6.153	70	86935	1201.76	ug/L	98
74) toluene	6.329	92	188103	48.13	ug/L	97
75) trans-1,3-dichloropropene	6.496	75	119143	56.89	ug/L	98
76) ethyl methacrylate	6.512	69	121141	53.18	ug/L	98
77) 1,1,2-trichloroethane	6.670	83	60738	50.38	ug/L	96
78) 2-hexanone	6.833	58	187636	213.97	ug/L	98
79) tetrachloroethene	6.772	166	85030	46.11	ug/L	98
80) 1,3-dichloropropane	6.817	76	120302	51.04	ug/L	100
81) butyl acetate	6.913	56	71010	52.51	ug/L	95
82) dibromochloromethane	7.010	129	82376	53.64	ug/L	99
83) 1,2-dibromoethane	7.132	107	91169	49.65	ug/L	99
84) n-butyl ether	7.594	57	340084	52.04	ug/L	99
85) chlorobenzene	7.562	112	205861	47.74	ug/L	97
86) 1,1,1,2-tetrachloroethane	7.629	131	75722	50.57	ug/L	96
87) ethylbenzene	7.635	91	360628	49.09	ug/L	98
88) m,p-xylene	7.751	106	274454	95.56	ug/L	97
89) o-xylene	8.114	106	136292	47.24	ug/L	94
90) butyl acrylate	8.021	55	190953	56.93	ug/L	97
91) n-amyl acetate	8.223	70	70290	54.30	ug/L	97
92) styrene	8.123	104	234473	49.50	ug/L	99
93) bromoform	8.309	173	61241	55.67	ug/L	99
94) isopropylbenzene	8.447	105	353102	48.03	ug/L	98
95) cis-1,4-dichloro-2-butene	8.499	88	39389	62.02	ug/L	96
98) bromobenzene	8.768	156	90348	48.88	ug/L	94
99) 1,1,2,2-tetrachloroethane	8.730	83	107396	51.61	ug/L	99
100) trans-1,4-dichloro-2-b...	8.768	53	33341	58.78	ug/L	95
101) 1,2,3-trichloropropane	8.794	110	32805	49.71	ug/L	95
102) n-propylbenzene	8.845	91	406603	48.50	ug/L	100
103) 2-chlorotoluene	8.945	126	83523	47.72	ug/L	93
104) 4-chlorotoluene	9.060	126	83084	47.99	ug/L	90
105) 1,3,5-trimethylbenzene	9.012	105	286475	48.53	ug/L	96
106) tert-butylbenzene	9.323	119	248344	48.17	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201127.d
 Acq On : 18 May 2020 6:38 pm
 Operator : brittank
 Sample : bs Inst : MSDTEST1A
 Misc : MS43164,V1A8674,w,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 18 19:02:06 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
107) 1,2,4-trimethylbenzene	9.381	105	288346	49.44	ug/L	98
108) sec-butylbenzene	9.545	105	352937	48.75	ug/L	98
109) 1,3-dichlorobenzene	9.673	146	162055	47.93	ug/L	98
110) p-isopropyltoluene	9.689	119	301967	48.87	ug/L	100
111) 1,4-dichlorobenzene	9.769	146	161903	48.18	ug/L	97
112) 1,2-dichlorobenzene	10.129	146	151440	48.38	ug/L	98
113) n-butylbenzene	10.090	92	145837	51.24	ug/L	98
114) 1,2-dibromo-3-chloropr...	10.899	157	29382	52.79	ug/L	93
115) 1,3,5-trichlorobenzene	11.091	180	113633	49.21	ug/L	100
116) 1,2,4-trichlorobenzene	11.724	180	93554	50.30	ug/L	94
117) hexachlorobutadiene	11.862	225	42528	49.74	ug/L	99
118) naphthalene	11.993	128	288735	51.01	ug/L	98
119) 1,2,3-trichlorobenzene	12.211	180	82665	51.06	ug/L	94
120) hexachloroethane	10.402	119	52988	55.76	ug/L	97
121) benzyl chloride	9.879	91	217667	63.50	ug/L	99
122) 2-ethylhexyl acrylate	11.887	70	13268	10.94	ug/L	99
123) 2-methylnaphthalene	13.148	142	59692	26.20	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

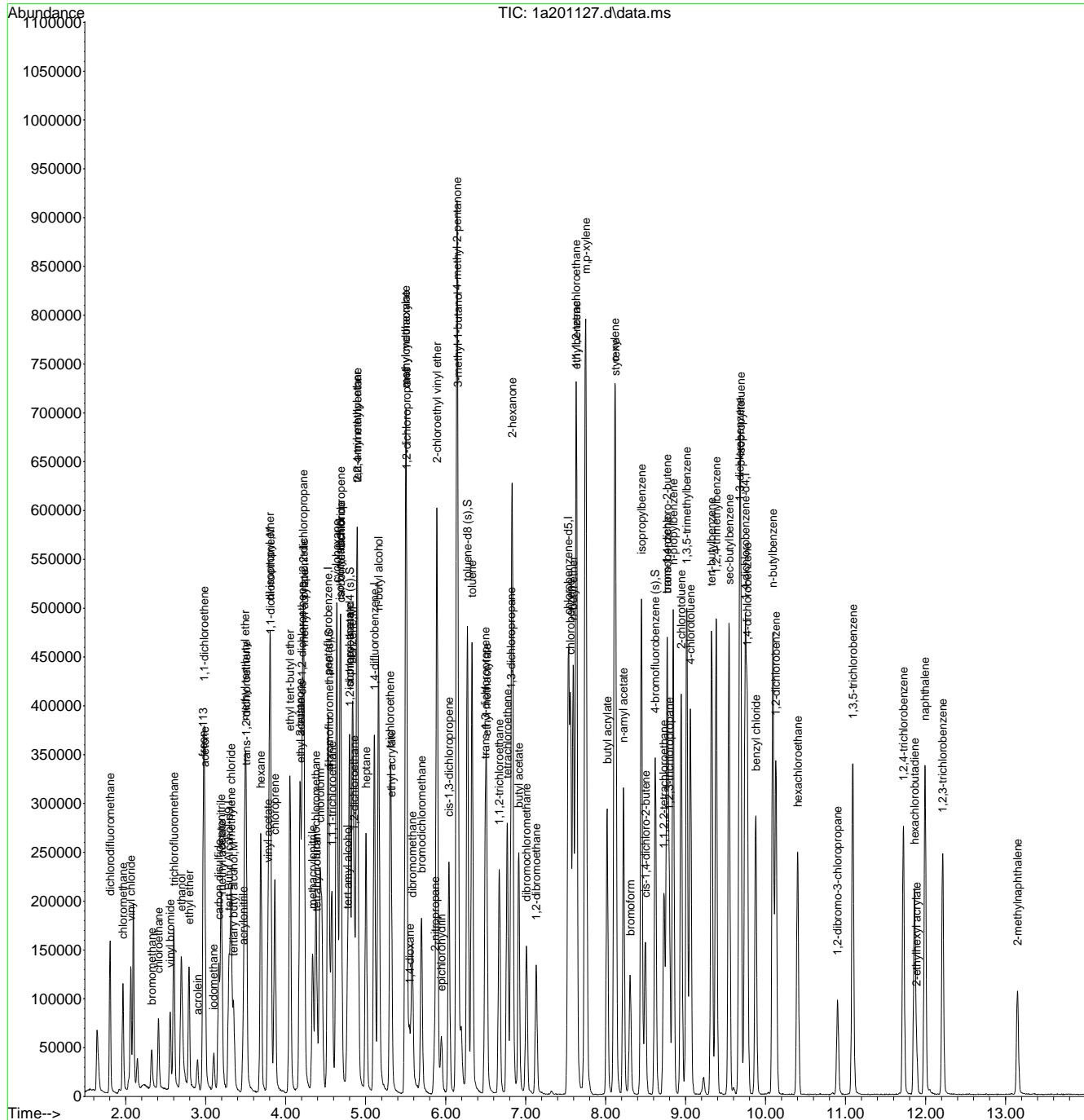
7.3.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
Data File : 1a201127.d
Acq On : 18 May 2020 6:38 pm
Operator : brittank
Sample : bs Inst
Misc : MS43164,V1A8674,w,,,1
ALS Vial : 3 Sample Multiplier: 1

Inst : MSDTEST1A

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
Quant Results File: M1A8665.RES
Quant Time: May 18 19:02:06 2020
Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon May 11 09:40:07 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201131.d
 Acq On : 18 May 2020 8:17 pm
 Operator : brittank
 Sample : jd7277-13ms
 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:23:18 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.291	65	141474	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	183540	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	277384	50.00	ug/L	0.00
72) chlorobenzene-d5	7.536	117	264296	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.744	152	132798	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	80535	53.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 106.20%		
52) 1,2-dichloroethane-d4 (s)	4.802	65	97355	53.46	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 106.92%		
73) toluene-d8 (s)	6.272	98	320080	49.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 98.92%		
97) 4-bromofluorobenzene (s)	8.621	95	123497	51.35	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 102.70%		
Target Compounds						
2) 1,4-dioxane	5.550	88	39576	1087.27	ug/L	96
3) ethanol	2.697	45	163029	4602.19	ug/L	95
4) tertiary butyl alcohol	3.348	59	90450	230.46	ug/L	99
7) dichlorodifluoromethane	1.805	85	105956	56.21	ug/L	99
8) chloromethane	1.965	50	84978	58.52	ug/L	99
9) vinyl chloride	2.065	62	96463	57.56	ug/L	99
10) bromomethane	2.321	94	24111	53.78	ug/L	98
11) chloroethane	2.411	64	51502	55.83	ug/L	98
12) vinyl bromide	2.556	106	47850	54.13	ug/L	97
13) trichlorofluoromethane	2.601	101	121370	56.95	ug/L	98
14) ethyl ether	2.793	74	36367	47.96	ug/L	92
15) acrolein	2.896	56	22765	58.61	ug/L	98
16) freon 113	2.970	151	46838	47.53	ug/L	89
17) 1,1-dichloroethene	2.979	96	55819	46.69	ug/L	97
18) acetone	2.992	58	35986	191.67	ug/L	100
19) acetonitrile	3.188	40	74697	532.43	ug/L	96
20) iodomethane	3.098	142	37237	57.12	ug/L	96
21) iso-butyl alcohol	4.680	43	64940	580.93	ug/L	95
22) carbon disulfide	3.162	76	142609	44.24	ug/L	98
23) methylene chloride	3.316	84	65328	46.90	ug/L	91
24) methyl acetate	3.201	74	16767	49.61	ug/L	92
25) methyl tert butyl ether	3.493	73	211014	48.47	ug/L	96
26) trans-1,2-dichloroethene	3.509	96	64904	46.90	ug/L	99
27) hexane	3.692	57	110637	50.22	ug/L	97
28) di-isopropyl ether	3.804	45	232598	50.04	ug/L	96
29) ethyl tert-butyl ether	4.054	59	233067	49.11	ug/L	96
30) 2-butanone	4.176	72	53228	202.33	ug/L	93
31) 1,1-dichloroethane	3.810	63	124007	50.59	ug/L	99
32) chloroprene	3.862	53	107482	51.91	ug/L	95
33) acrylonitrile	3.470	53	37652	52.40	ug/L	92
34) vinyl acetate	3.781	86	18009	51.75	ug/L #	91
35) ethyl acetate	4.186	45	16224	49.72	ug/L	85
36) 2,2-dichloropropane	4.221	77	108454	51.84	ug/L	97
37) cis-1,2-dichloroethene	4.208	96	74698	46.89	ug/L	97
38) propionitrile	4.228	54	168471	534.81	ug/L	94
39) methyl acrylate	4.231	85	15213	48.80	ug/L #	92
40) bromochloromethane	4.375	128	34603	46.21	ug/L	92
41) tetrahydrofuran	4.388	72	15310	48.72	ug/L	97
42) chloroform	4.430	83	122860	44.08	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201131.d
 Acq On : 18 May 2020 8:17 pm
 Operator : brittank
 Sample : jd7277-13ms
 Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:23:18 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
44) methacrylonitrile	4.337	67	39821	50.03	ug/L	96
45) 1,1,1-trichloroethane	4.577	97	115106	50.39	ug/L	96
46) cyclohexane	4.635	84	118742	56.51	ug/L	91
47) 1,1-dichloropropene	4.686	75	94883	47.98	ug/L	97
48) carbon tetrachloride	4.693	117	97685	49.52	ug/L	98
49) isopropyl acetate	4.802	87	21556	49.52	ug/L #	89
50) tert amyl alcohol	4.776	55	30603	272.97	ug/L #	91
53) tert-amyl methyl ether	4.892	73	223156	46.44	ug/L	97
54) 2,2,4-trimethylpentane	4.898	57	232699	49.32	ug/L	99
55) n-butyl alcohol	5.161	56	240741	3016.48	ug/L	99
56) benzene	4.837	78	276233	45.34	ug/L	99
57) heptane	5.004	57	55592	50.16	ug/L	95
58) 1,2-dichloroethane	4.860	62	95338	43.78	ug/L	98
59) trichloroethene	5.306	95	72637	46.02	ug/L	96
60) ethyl acrylate	5.322	55	130652	49.28	ug/L	98
61) 2-nitropropane	5.864	41	28038	49.34	ug/L	86
63) methyl methacrylate	5.505	100	26204	48.40	ug/L #	89
64) 1,2-dichloropropane	5.511	63	72262	47.94	ug/L	98
65) methylcyclohexane	5.501	83	124825	46.35	ug/L	93
66) dibromomethane	5.582	93	43603	46.40	ug/L	98
67) bromodichloromethane	5.697	83	99831	46.96	ug/L	99
68) cis-1,3-dichloropropene	6.041	75	119796	50.87	ug/L	97
69) epichlorohydrin	5.947	57	38788	239.86	ug/L	97
70) 4-methyl-2-pentanone	6.140	58	177735	207.23	ug/L	99
71) 3-methyl-1-butanol	6.153	70	89803	1212.45	ug/L	94
74) toluene	6.329	92	181265	44.55	ug/L	100
75) trans-1,3-dichloropropene	6.496	75	110814	50.82	ug/L	99
76) ethyl methacrylate	6.512	69	116499	49.13	ug/L	97
77) 1,1,2-trichloroethane	6.673	83	57300	45.66	ug/L	97
78) 2-hexanone	6.836	58	188002	205.93	ug/L	97
79) tetrachloroethene	6.769	166	84552	44.04	ug/L	93
80) 1,3-dichloropropane	6.817	76	115466	47.06	ug/L	95
81) butyl acetate	6.913	56	70086	49.78	ug/L	96
82) dibromochloromethane	7.010	129	78698	49.22	ug/L	99
83) 1,2-dibromoethane	7.132	107	88125	46.10	ug/L	96
84) n-butyl ether	7.594	57	327948	48.20	ug/L	98
85) chlorobenzene	7.562	112	199287	44.39	ug/L	97
86) 1,1,1,2-tetrachloroethane	7.632	131	72724	46.65	ug/L	94
87) ethylbenzene	7.635	91	349027	45.64	ug/L	99
88) m,p-xylene	7.751	106	269030	89.98	ug/L	98
89) o-xylene	8.110	106	132850	44.23	ug/L	97
90) butyl acrylate	8.017	55	183181	52.46	ug/L	98
91) n-amyl acetate	8.223	70	69728	51.74	ug/L	94
92) styrene	8.123	104	227557	46.15	ug/L	99
93) bromoform	8.306	173	58393	50.99	ug/L	95
94) isopropylbenzene	8.447	105	346915	45.33	ug/L	99
95) cis-1,4-dichloro-2-butene	8.499	88	36210	54.76	ug/L	93
98) bromobenzene	8.771	156	87148	44.31	ug/L	90
99) 1,1,2,2-tetrachloroethane	8.726	83	104130	47.03	ug/L	95
100) trans-1,4-dichloro-2-b...	8.765	53	31522	52.23	ug/L	96
101) 1,2,3-trichloropropane	8.797	110	32246	45.92	ug/L	99
102) n-propylbenzene	8.845	91	407423	45.68	ug/L	99
103) 2-chlorotoluene	8.945	126	81463	43.74	ug/L	99
104) 4-chlorotoluene	9.060	126	80427	43.66	ug/L	92
105) 1,3,5-trimethylbenzene	9.015	105	285314	45.42	ug/L	97
106) tert-butylbenzene	9.323	119	251138	45.78	ug/L	99
107) 1,2,4-trimethylbenzene	9.381	105	286521	46.18	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201131.d
 Acq On : 18 May 2020 8:17 pm
 Operator : brittank
 Sample : jd7277-13ms Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:23:18 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
108) sec-butylbenzene	9.541	105	362683	47.08	ug/L	99
109) 1,3-dichlorobenzene	9.673	146	159087	44.22	ug/L	98
110) p-isopropyltoluene	9.689	119	306074	46.55	ug/L	99
111) 1,4-dichlorobenzene	9.769	146	158016	44.20	ug/L	98
112) 1,2-dichlorobenzene	10.129	146	149370	44.84	ug/L	97
113) n-butylbenzene	10.090	92	149294	49.30	ug/L	99
114) 1,2-dibromo-3-chloropr...	10.899	157	28739	48.53	ug/L	98
115) 1,3,5-trichlorobenzene	11.088	180	113112	46.04	ug/L	99
116) 1,2,4-trichlorobenzene	11.720	180	92534	46.75	ug/L	98
117) hexachlorobutadiene	11.862	225	43982	48.34	ug/L	97
118) naphthalene	11.993	128	278320	46.21	ug/L	99
119) 1,2,3-trichlorobenzene	12.214	180	79984	46.43	ug/L	97
120) hexachloroethane	10.398	119	52522	51.94	ug/L	95
121) benzyl chloride	9.875	91	212032	58.14	ug/L	98
122) 2-ethylhexyl acrylate	11.890	70	13738	10.67	ug/L	95
123) 2-methylnaphthalene	13.152	142	57361	23.66	ug/L	95

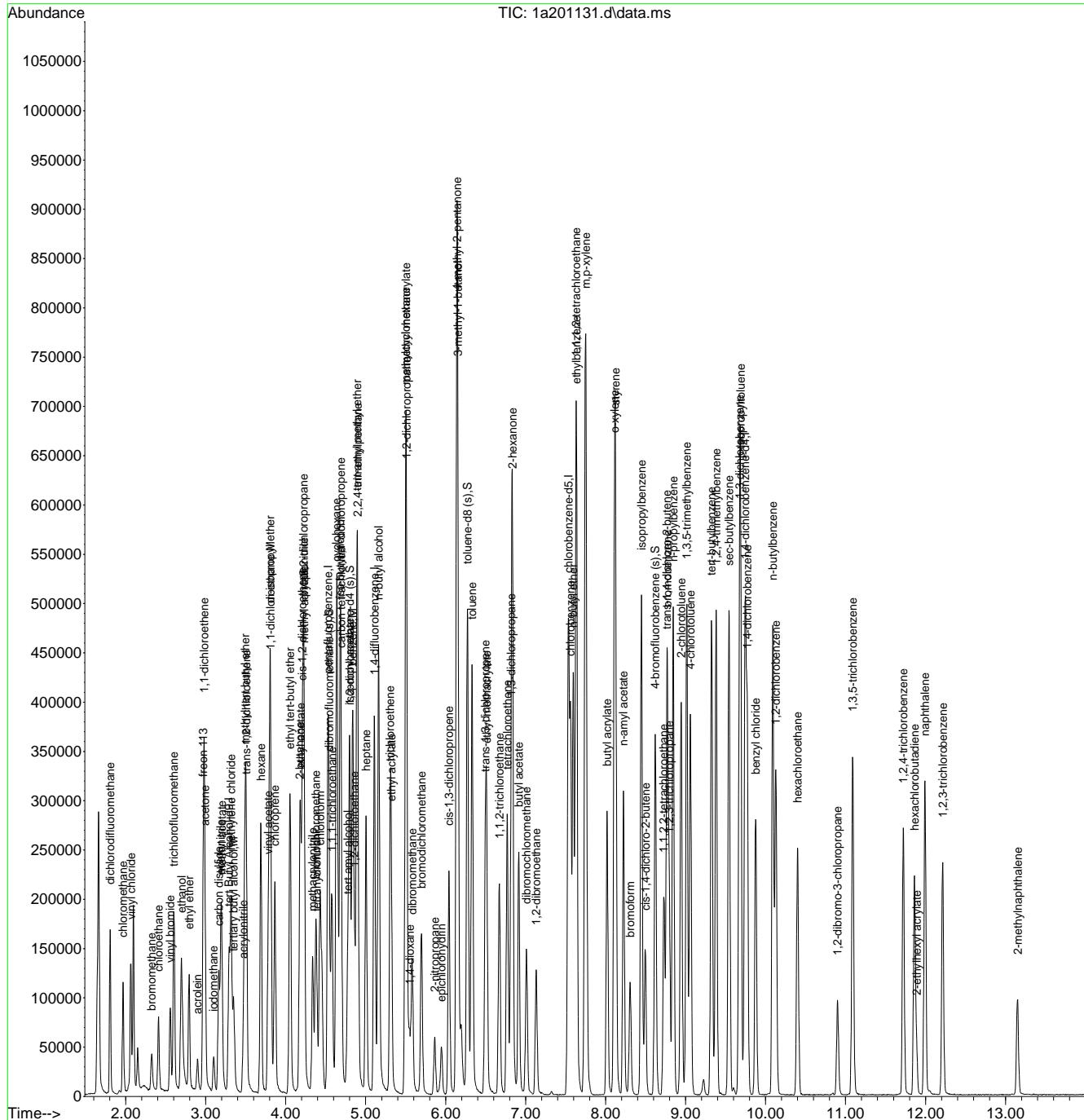
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\vla8674\
Data File : la201131.d
Acq On : 18 May 2020 8:17 pm
Operator : brittak
Sample : jd7277-13ms Inst
Misc : MS43210,VLA8674,w,,,1
ALS Vial : 7 Sample Multiplier: 1

Inst : MSDTEST1A

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
Quant Results File: M1A8665.RES
Quant Time: May 19 17:23:18 2020
Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon May 11 09:40:07 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201132.d
 Acq On : 18 May 2020 8:41 pm
 Operator : brittank
 Sample : jd7277-13msd Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:23:33 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.291	65	148051	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	186212	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.107	114	282515	50.00	ug/L	0.00
72) chlorobenzene-d5	7.536	117	273120	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.744	152	137837	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	82744	53.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 107.56%		
52) 1,2-dichloroethane-d4 (s)	4.802	65	100547	54.21	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 108.42%		
73) toluene-d8 (s)	6.272	98	330192	49.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 98.76%		
97) 4-bromofluorobenzene (s)	8.621	95	126153	50.53	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 101.06%		
<hr/>						
Target Compounds						
2) 1,4-dioxane	5.550	88	42654	1119.78	ug/L	97
3) ethanol	2.700	45	176104	4750.44	ug/L	97
4) tertiary butyl alcohol	3.352	59	93630	227.97	ug/L	98
7) dichlorodifluoromethane	1.805	85	104888	54.85	ug/L	97
8) chloromethane	1.969	50	88118	59.82	ug/L	100
9) vinyl chloride	2.065	62	96220	56.59	ug/L	99
10) bromomethane	2.325	94	26918	59.18	ug/L	98
11) chloroethane	2.411	64	49891	53.30	ug/L	98
12) vinyl bromide	2.556	106	47796	53.29	ug/L	97
13) trichlorofluoromethane	2.601	101	119610	55.32	ug/L	99
14) ethyl ether	2.793	74	37041	48.15	ug/L	92
15) acrolein	2.896	56	20919	53.09	ug/L	95
16) freon 113	2.973	151	45294	45.31	ug/L	92
17) 1,1-dichloroethene	2.983	96	55645	45.88	ug/L	100
18) acetone	2.989	58	38178	200.43	ug/L	99
19) acetonitrile	3.188	40	78444	551.11	ug/L	100
20) iodomethane	3.098	142	47388	71.65	ug/L	96
21) iso-butyl alcohol	4.680	43	67751	597.38	ug/L	96
22) carbon disulfide	3.162	76	142307	43.51	ug/L	98
23) methylene chloride	3.316	84	65622	46.44	ug/L	97
24) methyl acetate	3.204	74	17973	52.42	ug/L	91
25) methyl tert butyl ether	3.493	73	216751	49.07	ug/L	98
26) trans-1,2-dichloroethene	3.509	96	64934	46.25	ug/L	91
27) hexane	3.689	57	109338	48.91	ug/L	97
28) di-isopropyl ether	3.804	45	240179	50.93	ug/L	97
29) ethyl tert-butyl ether	4.054	59	240227	49.90	ug/L	96
30) 2-butanone	4.176	72	55976	209.73	ug/L	91
31) 1,1-dichloroethane	3.810	63	123827	49.79	ug/L	97
32) chloroprene	3.865	53	104375	49.69	ug/L	98
33) acrylonitrile	3.474	53	40158	55.09	ug/L	94
34) vinyl acetate	3.782	86	17200	48.71	ug/L #	77
35) ethyl acetate	4.186	45	19111	57.73	ug/L	91
36) 2,2-dichloropropane	4.218	77	107453	50.63	ug/L	95
37) cis-1,2-dichloroethene	4.205	96	74602	46.16	ug/L	97
38) propionitrile	4.228	54	174278	545.30	ug/L	96
39) methyl acrylate	4.231	85	15642	49.45	ug/L #	88
40) bromochloromethane	4.375	128	35972	47.34	ug/L	97
41) tetrahydrofuran	4.388	72	16291	51.10	ug/L	94
42) chloroform	4.430	83	123290	43.60	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201132.d
 Acq On : 18 May 2020 8:41 pm
 Operator : brittank
 Sample : jd7277-13msd Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:23:33 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
44) methacrylonitrile	4.337	67	40961	50.73	ug/L	83
45) 1,1,1-trichloroethane	4.577	97	113850	49.12	ug/L	98
46) cyclohexane	4.638	84	118518	55.60	ug/L	98
47) 1,1-dichloropropene	4.683	75	96118	47.90	ug/L	99
48) carbon tetrachloride	4.690	117	98047	48.99	ug/L	99
49) isopropyl acetate	4.799	87	21990	49.80	ug/L #	84
50) tert amyl alcohol	4.776	55	32605	286.65	ug/L	95
53) tert-amyl methyl ether	4.892	73	229667	46.93	ug/L	99
54) 2,2,4-trimethylpentane	4.895	57	234466	48.80	ug/L	100
55) n-butyl alcohol	5.161	56	252908	3111.38	ug/L	98
56) benzene	4.837	78	275084	44.33	ug/L	98
57) heptane	5.004	57	56725	50.25	ug/L	96
58) 1,2-dichloroethane	4.860	62	96729	43.61	ug/L	99
59) trichloroethene	5.309	95	72886	45.34	ug/L	98
60) ethyl acrylate	5.319	55	134586	49.84	ug/L	98
61) 2-nitropropane	5.864	41	28836	49.82	ug/L	85
63) methyl methacrylate	5.502	100	26681	48.39	ug/L #	84
64) 1,2-dichloropropane	5.508	63	73182	47.67	ug/L	98
65) methylcyclohexane	5.502	83	126939	46.28	ug/L	93
66) dibromomethane	5.579	93	45441	47.48	ug/L	98
67) bromodichloromethane	5.697	83	101363	46.82	ug/L	95
68) cis-1,3-dichloropropene	6.041	75	120760	50.35	ug/L	96
69) epichlorohydrin	5.944	57	40851	248.03	ug/L	97
70) 4-methyl-2-pentanone	6.140	58	185670	212.55	ug/L	95
71) 3-methyl-1-butanol	6.153	70	93504	1239.50	ug/L	97
74) toluene	6.329	92	178831	42.53	ug/L	96
75) trans-1,3-dichloropropene	6.496	75	113382	50.32	ug/L	98
76) ethyl methacrylate	6.512	69	118758	48.46	ug/L	98
77) 1,1,2-trichloroethane	6.670	83	58018	44.73	ug/L	97
78) 2-hexanone	6.833	58	193611	205.23	ug/L	96
79) tetrachloroethene	6.769	166	85341	43.02	ug/L	96
80) 1,3-dichloropropane	6.817	76	115466	45.54	ug/L	99
81) butyl acetate	6.914	56	72417	49.78	ug/L	91
82) dibromochloromethane	7.010	129	80160	48.52	ug/L	99
83) 1,2-dibromoethane	7.132	107	89357	45.23	ug/L	95
84) n-butyl ether	7.594	57	330876	47.06	ug/L	99
85) chlorobenzene	7.562	112	201817	43.50	ug/L	99
86) 1,1,1,2-tetrachloroethane	7.629	131	72272	44.86	ug/L	99
87) ethylbenzene	7.636	91	346120	43.80	ug/L	98
88) m,p-xylene	7.751	106	267667	86.63	ug/L	98
89) o-xylene	8.110	106	132039	42.54	ug/L	99
90) butyl acrylate	8.017	55	188001	52.10	ug/L	99
91) n-amyl acetate	8.223	70	71197	51.12	ug/L	99
92) styrene	8.126	104	227863	44.71	ug/L	100
93) bromoform	8.306	173	60441	51.07	ug/L	95
94) isopropylbenzene	8.447	105	349052	44.13	ug/L	98
95) cis-1,4-dichloro-2-butene	8.495	88	39549	57.88	ug/L	96
98) bromobenzene	8.771	156	88276	43.24	ug/L	93
99) 1,1,2,2-tetrachloroethane	8.730	83	108933	47.40	ug/L	97
100) trans-1,4-dichloro-2-b...	8.768	53	33520	53.51	ug/L	93
101) 1,2,3-trichloropropane	8.797	110	34025	46.69	ug/L	97
102) n-propylbenzene	8.845	91	408783	44.15	ug/L	99
103) 2-chlorotoluene	8.945	126	81500	42.16	ug/L	98
104) 4-chlorotoluene	9.060	126	81113	42.42	ug/L	94
105) 1,3,5-trimethylbenzene	9.012	105	284849	43.69	ug/L	97
106) tert-butylbenzene	9.327	119	252120	44.28	ug/L	100
107) 1,2,4-trimethylbenzene	9.381	105	286131	44.43	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201132.d
 Acq On : 18 May 2020 8:41 pm
 Operator : brittank
 Sample : jd7277-13msd Inst : MSDTEST1A
 Misc : MS43210,V1A8674,w,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 19 17:23:33 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
108) sec-butylbenzene	9.545	105	361581	45.22	ug/L	99
109) 1,3-dichlorobenzene	9.673	146	161295	43.20	ug/L	98
110) p-isopropyltoluene	9.689	119	307782	45.10	ug/L	99
111) 1,4-dichlorobenzene	9.769	146	159494	42.98	ug/L	99
112) 1,2-dichlorobenzene	10.129	146	151952	43.95	ug/L	99
113) n-butylbenzene	10.090	92	150453	47.87	ug/L	99
114) 1,2-dibromo-3-chloropr...	10.902	157	30286	49.27	ug/L	94
115) 1,3,5-trichlorobenzene	11.088	180	115988	45.48	ug/L	99
116) 1,2,4-trichlorobenzene	11.724	180	95016	46.25	ug/L	100
117) hexachlorobutadiene	11.858	225	45764	48.46	ug/L	96
118) naphthalene	11.993	128	292351	46.76	ug/L	99
119) 1,2,3-trichlorobenzene	12.215	180	83204	46.53	ug/L	99
120) hexachloroethane	10.398	119	52977	50.48	ug/L	92
121) benzyl chloride	9.879	91	220862	58.35	ug/L	99
122) 2-ethylhexyl acrylate	11.884	70	13740	10.32	ug/L	93
123) 2-methylnaphthalene	13.148	142	61029	24.26	ug/L	98

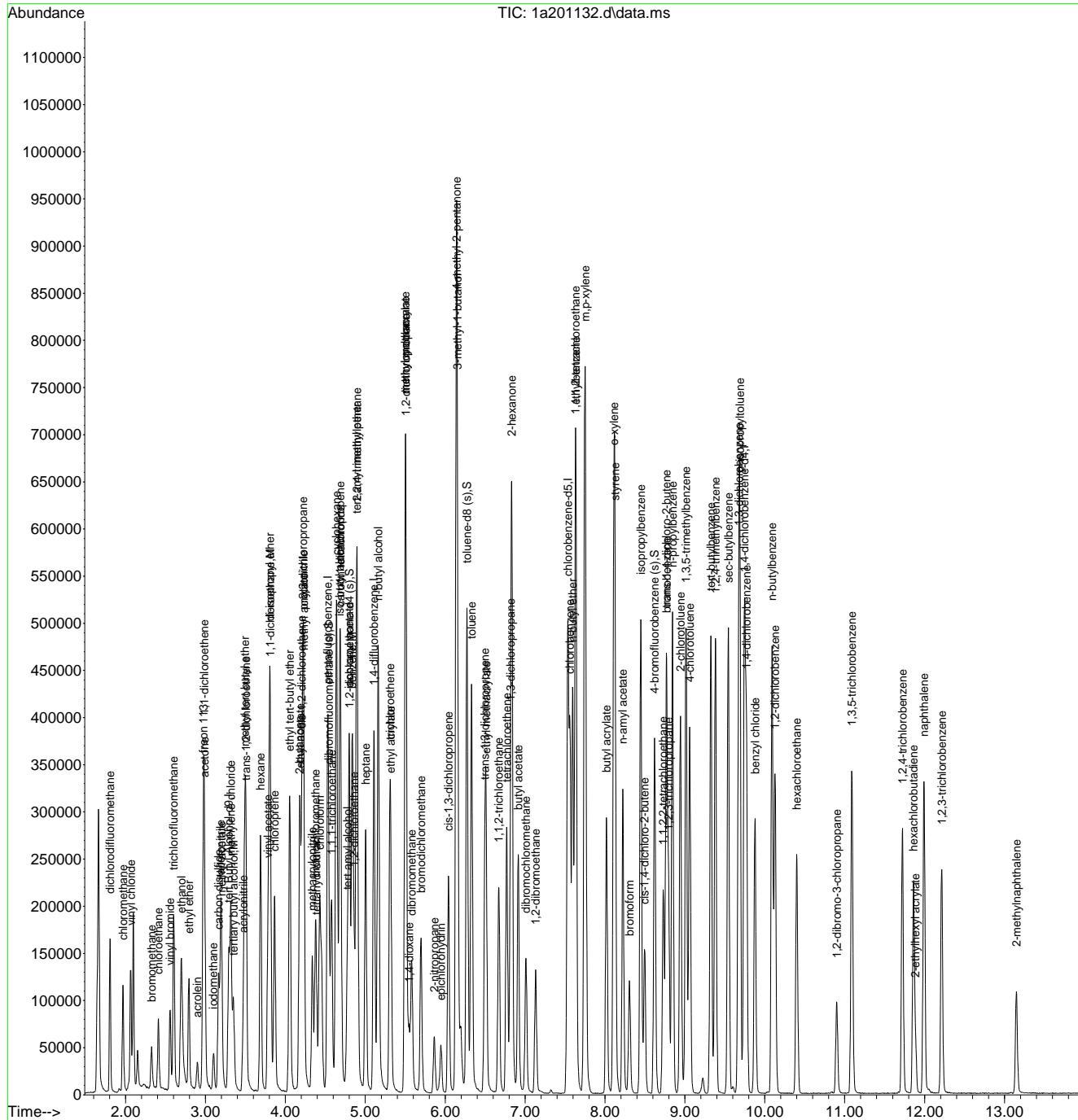
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674
Data File : 1a201132.d
Acq On : 18 May 2020 8:41 pm
Operator : brittak
Sample : jd7277-13msd Inst
Misc : MS43210,V1A8674,w,,,1
ALS Vial : 8 Sample Multiplier: 1

Inst : MSDTEST1A

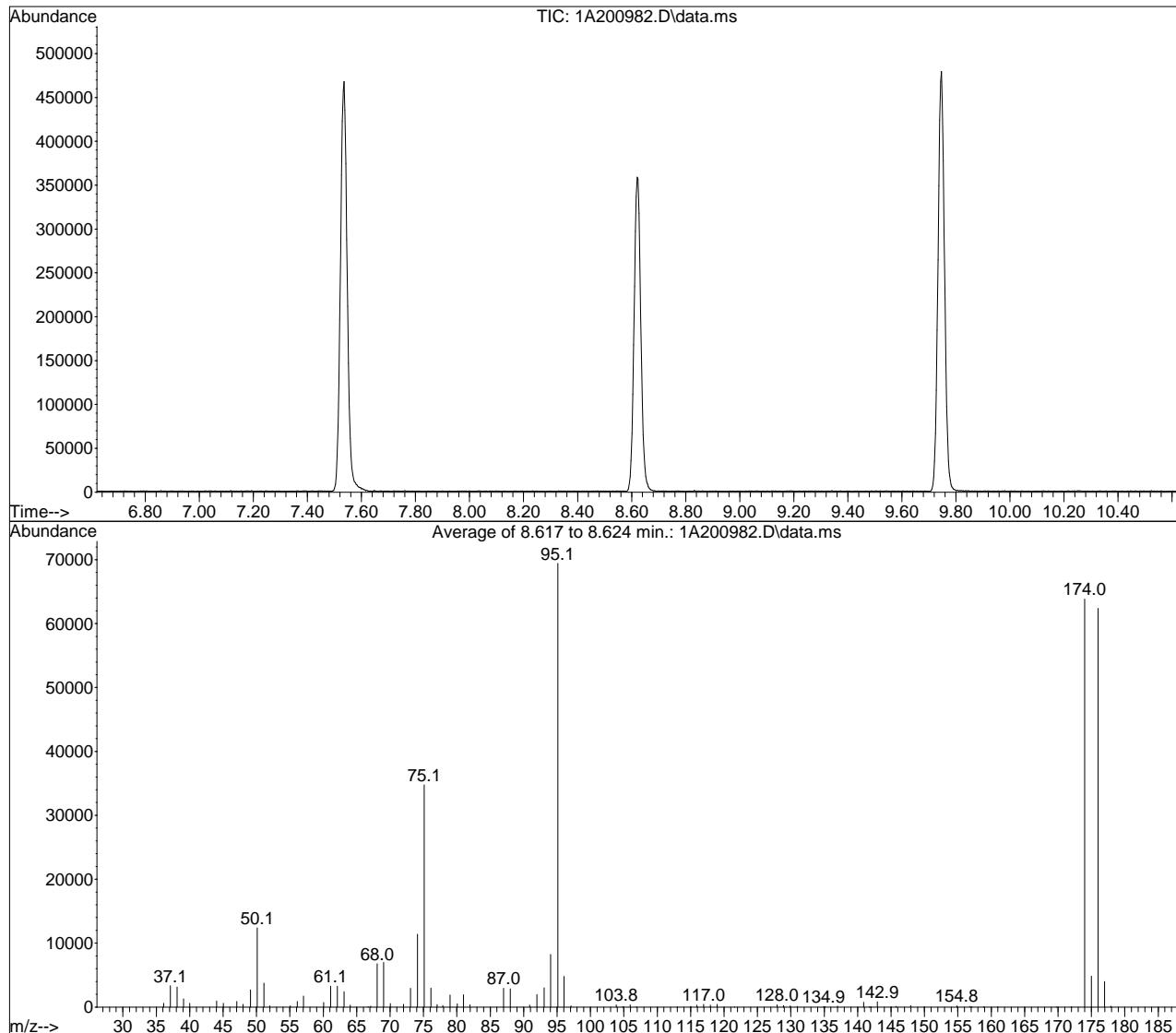
Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
Quant Results File: M1A8665.RES
Quant Time: May 19 17:23:33 2020
Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon May 11 09:40:07 2020
Response via : Initial Calibration



SW-846 Method 8260

Data File : C:\msdchem\1\data\V1A8665\1A200982.D Vial: 1
 Acq On : 9 May 2020 4:10 pm Operator: PrashanS
 Sample : BFB Inst : MSDTEST1A
 Misc : MS42950,V1A8665,w,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A8665.M (RTE Integrator)
 Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um



Spectrum Information: Average of 8.617 to 8.624 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	12388	PASS
75	95	30	60	50.1	34757	PASS
95	95	100	100	100.0	69424	PASS
96	95	5	9	6.9	4813	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	92.0	63851	PASS
175	174	5	9	7.6	4842	PASS
176	174	95	101	97.7	62381	PASS
177	176	5	9	6.4	4002	PASS

Average of 8.617 to 8.624 min.: 1A200982.D\data.ms

BFB

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	598	51.10	3761	67.10	159	79.00	1877
37.10	3319.67	52.00	195	68.05	6792	80.05	515.667
38.10	3138	55.05	202.333	69.05	6993	81.00	1925.67
39.10	1269	56.10	860.667	70.05	545.333	81.95	362
40.00	611.333	57.05	1739.33	72.00	430.667	87.00	2934.33
44.05	964	60.05	702.333	73.05	2927.67	88.00	2838.67
45.05	609.667	61.10	3262	74.10	11370.7	90.90	301.667
47.05	869.333	62.10	3276	75.10	34757.3	92.00	1965
48.00	419.667	63.10	2401	76.10	2991	93.05	3013.33
49.10	2706.33	64.05	326.667	77.05	381.667	94.05	8216.67
50.10	12388	66.70	67.3333	77.90	229.333	95.10	69424

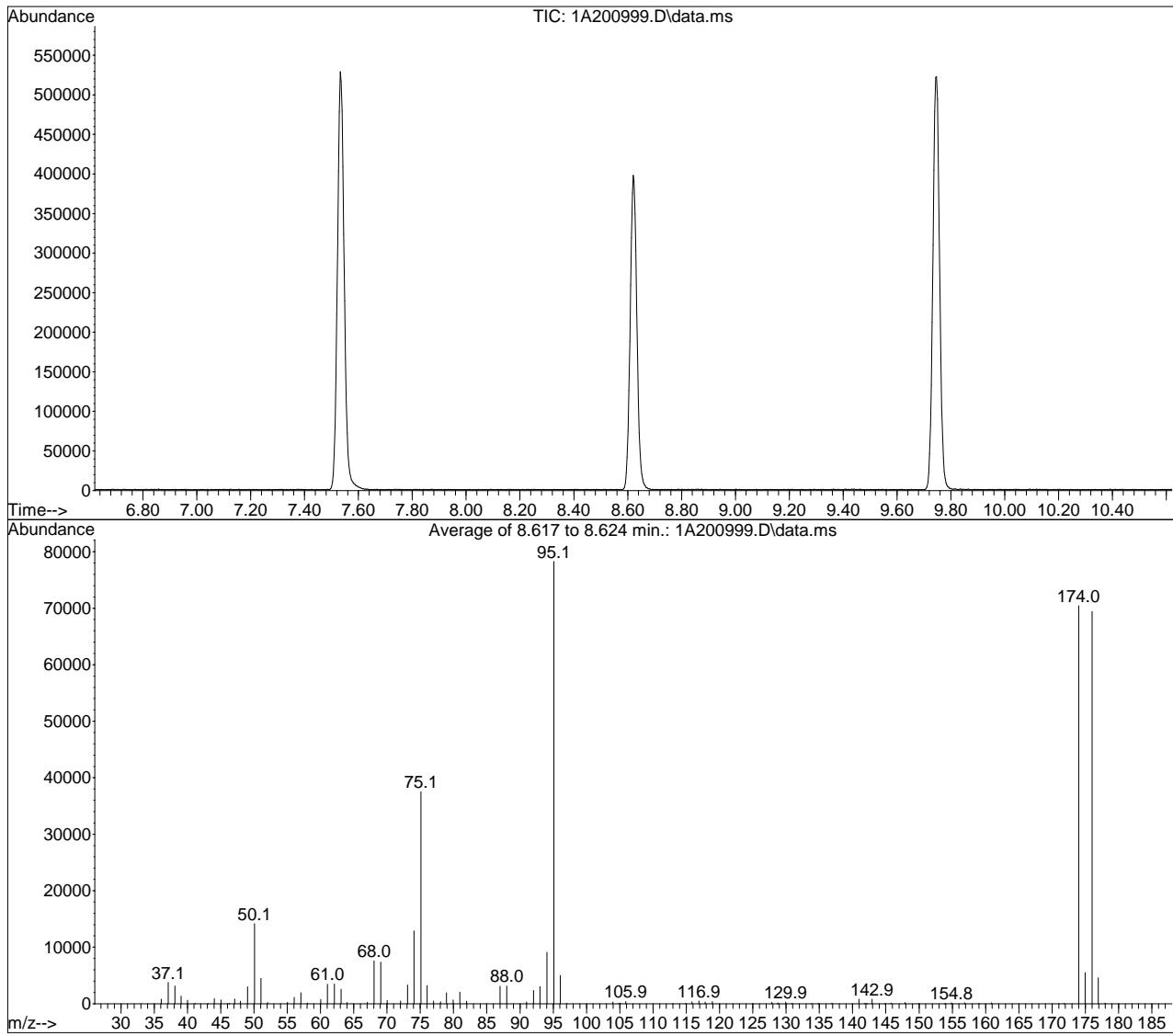
Average of 8.617 to 8.624 min.: 1A200982.D\data.ms

BFB

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.05	4812.67	118.95	408	142.00	81.6667	169.80	35
97.10	193.667	121.60	39.3333	142.95	828	172.00	45.6667
103.85	345.667	127.95	329.333	145.00	33.6667	174.00	63850.7
104.85	82	128.90	217.667	145.75	118.333	175.00	4841.67
105.95	339.333	129.90	178.333	147.95	214	176.00	62381.3
106.90	41	130.95	94	150.00	51.3333	176.95	4002
113.00	35.3333	134.90	73	154.85	168	177.90	161
115.00	96	135.10	45.3333	156.85	109.333		
115.95	297.333	137.00	158.667	157.10	54.3333		
116.95	429.667	140.90	762.667	158.90	52.3333		
117.95	293.333	141.80	45.6667	161.00	53		

SW-846 Method 8260
 Data File : C:\msdchem\1\data\V1A8665\1A200999.D Vial: 2
 Acq On : 11 May 2020 12:59 pm Operator: PrashanS
 Sample : BFB2 Inst : MSDTEST1A
 Misc : MS42950,V1A8665,w,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A8665.M (RTE Integrator)
 Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um



Spectrum Information: Average of 8.617 to 8.624 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.1	14148	PASS
75	95	30	60	47.9	37501	PASS
95	95	100	100	100.0	78267	PASS
96	95	5	9	6.4	5001	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	90.0	70443	PASS
175	174	5	9	7.8	5507	PASS
176	174	95	101	98.6	69440	PASS
177	176	5	9	6.6	4587	PASS

Average of 8.617 to 8.624 min.: 1A200999.D\data.ms
BFB2

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	780.333	47.10	852	61.05	3424.67	75.10	37501.3
37.10	3759.67	47.95	442	62.10	3472	76.05	3210
38.10	3138	49.05	2986.67	63.10	2561.67	77.00	496
39.05	1369	50.10	14148.3	64.00	201	78.05	345.667
40.00	633.333	51.05	4499.33	67.05	257	78.95	1926
41.20	51.6667	52.05	197	68.05	7580.67	79.95	654.333
43.10	34.6667	55.05	271	69.05	7378	80.95	2048.33
44.05	891.333	56.05	1118.67	70.05	562.333	81.95	419
45.05	658	57.05	1931.67	72.05	464.667	87.00	3088.33
46.00	45	58.05	125.667	73.10	3300.33	88.00	3119
46.30	50	60.05	733.333	74.05	12887.7	91.00	280.333

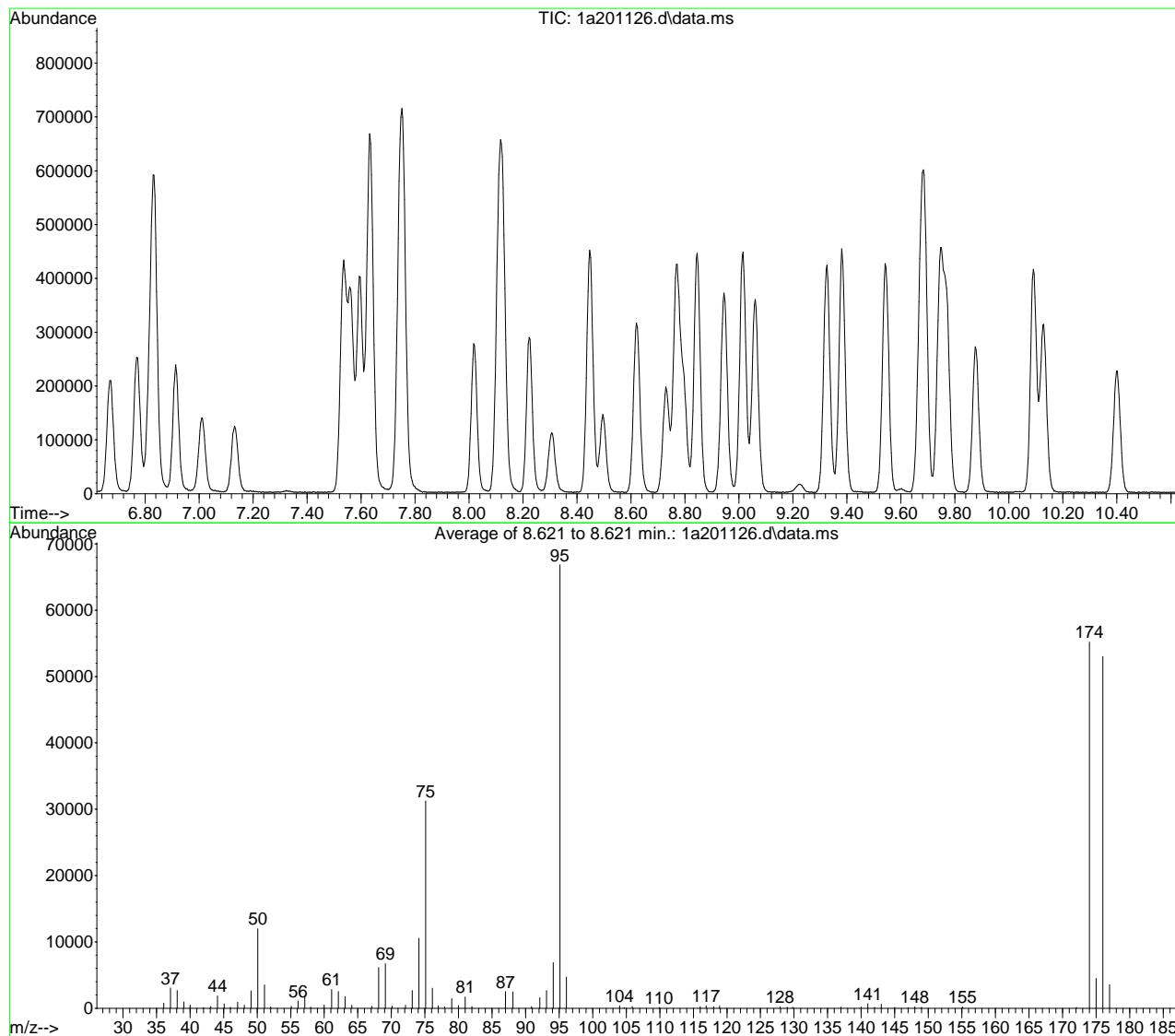
Average of 8.617 to 8.624 min.: 1A200999.D\data.ms
BFB2

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.05	2368.33	114.90	50	133.80	39.6667	149.90	46
93.00	3027	115.85	340.333	134.85	95	153.80	35
94.05	9108	116.90	467.333	136.90	119.333	154.00	44.3333
95.10	78266.7	117.85	276	140.95	801	154.85	179.667
96.05	5000.67	118.90	369.333	141.80	37.6667	156.85	161
97.05	89.6667	125.00	35.6667	142.00	40.3333	158.95	71.6667
103.95	284.667	127.85	269.667	142.20	47.6667	160.85	150.667
104.80	50.6667	128.70	63.3333	142.95	803.667	171.00	37.3333
105.10	98	128.85	119	144.85	82	171.80	56.3333
105.90	377.667	129.95	320.667	145.75	97.3333	174.00	70442.7
113.00	46	130.90	51.3333	147.90	207.667	174.95	5507

Average of 8.617 to 8.624 min.: 1A200999.D\data.ms
BFB2

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
176.00	69440						
176.95	4587.33						
178.00	115.333						

SW-846 Method 8260
 Data File : C:\msdchem\1\data\ja...20\v1a8674\1a201126.d Vial: 2
 Acq On : 18 May 2020 6:00 pm Operator: brittank
 Sample : bfb Inst : MSDTEST1A
 Misc : MS43164,V1A8674,w,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p
 Method : C:\MSDCHEM\1\METHODS\M1A8665.M (RTE Integrator)
 Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um



Spectrum Information: Average of 8.621 to 8.621 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.9	11986	PASS
75	95	30	60	46.8	31256	PASS
95	95	100	100	100.0	66840	PASS
96	95	5	9	7.0	4683	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	82.6	55216	PASS
175	174	5	9	8.2	4502	PASS
176	174	95	101	96.0	53032	PASS
177	176	5	9	6.8	3581	PASS

Average of 8.621 to 8.621 min.: 1a201126.d\data.ms
bfb

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	755	48.10	445	62.10	2501	76.10	3032
37.10	3073	49.10	2619	63.10	1740	77.00	364
38.10	2673	50.10	11986	64.10	440	77.90	230
39.10	964	51.10	3508	67.10	313	79.00	1450
40.00	481	52.00	206	68.10	6144	80.00	431
42.00	113	55.10	281	69.10	6738	81.00	1686
43.10	264	56.10	1101	70.10	321	82.00	274
44.10	1833	57.10	1836	72.10	453	87.00	2499
45.10	629	58.00	168	73.10	2685	88.10	2474
46.00	145	60.00	495	74.10	10549	90.90	240
47.10	926	61.10	2839	75.10	31256	92.10	1582

Average of 8.621 to 8.621 min.: 1a201126.d\data.ms
bfb

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.10	2676	118.90	318	148.00	216		
94.10	6856	127.90	233	149.00	135		
95.10	66840	129.00	144	155.10	179		
96.10	4683	129.80	175	172.10	149		
104.00	370	137.00	161	174.00	55216		
104.70	105	140.00	165	175.00	4502		
105.90	256	141.00	672	176.00	53032		
109.90	154	142.00	123	177.00	3581		
116.00	201	143.00	621				
116.90	372	145.00	145				
118.00	197	147.00	101				

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200983.D
 Acq On : 9 May 2020 4:42 pm
 Operator : PrashanS
 Sample : IC8665-0.2
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 11 14:51:55 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	145052	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	219959	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	310709	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	280508	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	138361	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	91233	49.92	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	99.84%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	103367	48.27	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	96.54%	
73) toluene-d8 (s)	6.272	98	352108	51.78	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	103.56%	
97) 4-bromofluorobenzene (s)	8.620	95	126004	51.50	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	103.00%	
<hr/>						
Target Compounds						
				Qvalue		
4) tertiary butyl alcohol	3.355	59	528	1.40	ug/L	80
6) chlorodifluoromethane	1.818	51	349	0.22	ug/L	64
7) dichlorodifluoromethane	1.808	85	450	0.20	ug/L	88
9) vinyl chloride	2.061	62	460	0.24	ug/L	59
13) trichlorofluoromethane	2.607	101	495	0.19	ug/L	93
25) methyl tert butyl ether	3.486	73	1176	0.23	ug/L	72
26) trans-1,2-dichloroethene	3.502	96	342	0.21	ug/L	# 44
27) hexane	3.692	57	639	0.25	ug/L	# 78
28) di-isopropyl ether	3.810	45	1322	0.25	ug/L	63
29) ethyl tert-butyl ether	4.054	59	1245	0.23	ug/L	81
31) 1,1-dichloroethane	3.813	63	598	0.20	ug/L	65
32) chloroprene	3.862	53	485	0.20	ug/L	72
36) 2,2-dichloropropane	4.218	77	463	0.19	ug/L	56
37) cis-1,2-dichloroethene	4.211	96	440	0.24	ug/L	# 52
38) propionitrile	4.231	54	647	1.71	ug/L	74
45) 1,1,1-trichloroethane	4.577	97	489	0.18	ug/L	# 1
47) 1,1-dichloropropene	4.686	75	444	0.19	ug/L	# 66
53) tert-amyl methyl ether	4.892	73	1117	0.21	ug/L	80
54) 2,2,4-trimethylpentane	4.901	57	1166	0.23	ug/L	92
56) benzene	4.837	78	1584	0.24	ug/L	88
60) ethyl acrylate	5.325	55	677	0.23	ug/L	73
62) 2-chloroethyl vinyl ether	5.886	63	1140	0.94	ug/L	82
67) bromodichloromethane	5.697	83	530	0.23	ug/L	93
68) cis-1,3-dichloropropene	6.044	75	466	0.17	ug/L	# 65
70) 4-methyl-2-pentanone	6.146	58	674	0.70	ug/L	# 63
74) toluene	6.332	92	960	0.23	ug/L	80
75) trans-1,3-dichloropropene	6.506	75	483	0.20	ug/L	78
76) ethyl methacrylate	6.515	69	524	0.20	ug/L	67
78) 2-hexanone	6.836	58	703	0.73	ug/L	82
79) tetrachloroethene	6.772	166	420	0.21	ug/L	79
84) n-butyl ether	7.597	57	1579	0.22	ug/L	89
85) chlorobenzene	7.568	112	1035	0.22	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200983.D
 Acq On : 9 May 2020 4:42 pm
 Operator : PrashanS
 Sample : IC8665-0.2
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 11 14:51:55 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87) ethylbenzene	7.639	91	1741	0.22	ug/L	86
88) m,p-xylene	7.751	106	1366	0.45	ug/L	84
89) o-xylene	8.120	106	721	0.24	ug/L	# 62
90) butyl acrylate	8.024	55	763	0.20	ug/L	# 56
92) styrene	8.129	104	984	0.19	ug/L	95
94) isopropylbenzene	8.450	105	1679	0.21	ug/L	81
98) bromobenzene	8.774	156	440	0.22	ug/L	# 63
99) 1,1,2,2-tetrachloroethane	8.730	83	464	0.21	ug/L	87
102) n-propylbenzene	8.845	91	2109	0.24	ug/L	88
103) 2-chlorotoluene	8.964	126	418	0.23	ug/L	# 10
104) 4-chlorotoluene	9.063	126	401	0.22	ug/L	# 30
105) 1,3,5-trimethylbenzene	9.015	105	1459	0.24	ug/L	85
106) tert-butylbenzene	9.323	119	1193	0.22	ug/L	70
107) 1,2,4-trimethylbenzene	9.384	105	1320	0.21	ug/L	86
108) sec-butylbenzene	9.538	105	1743	0.23	ug/L	80
109) 1,3-dichlorobenzene	9.679	146	839	0.23	ug/L	# 69
110) p-isopropyltoluene	9.692	119	1385	0.21	ug/L	91
112) 1,2-dichlorobenzene	10.129	146	780	0.23	ug/L	82
113) n-butylbenzene	10.097	92	658	0.21	ug/L	# 74
115) 1,3,5-trichlorobenzene	11.091	180	503	0.20	ug/L	# 70

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
Data File : 1A200983.D
Acq On : 9 May 2020 4:42 pm
Operator : Prashans
Sample : IC8665-0.2
Misc : MS42950,V1A8665,w,,,1
ALS Vial : 2 Sample Multiplier: 1

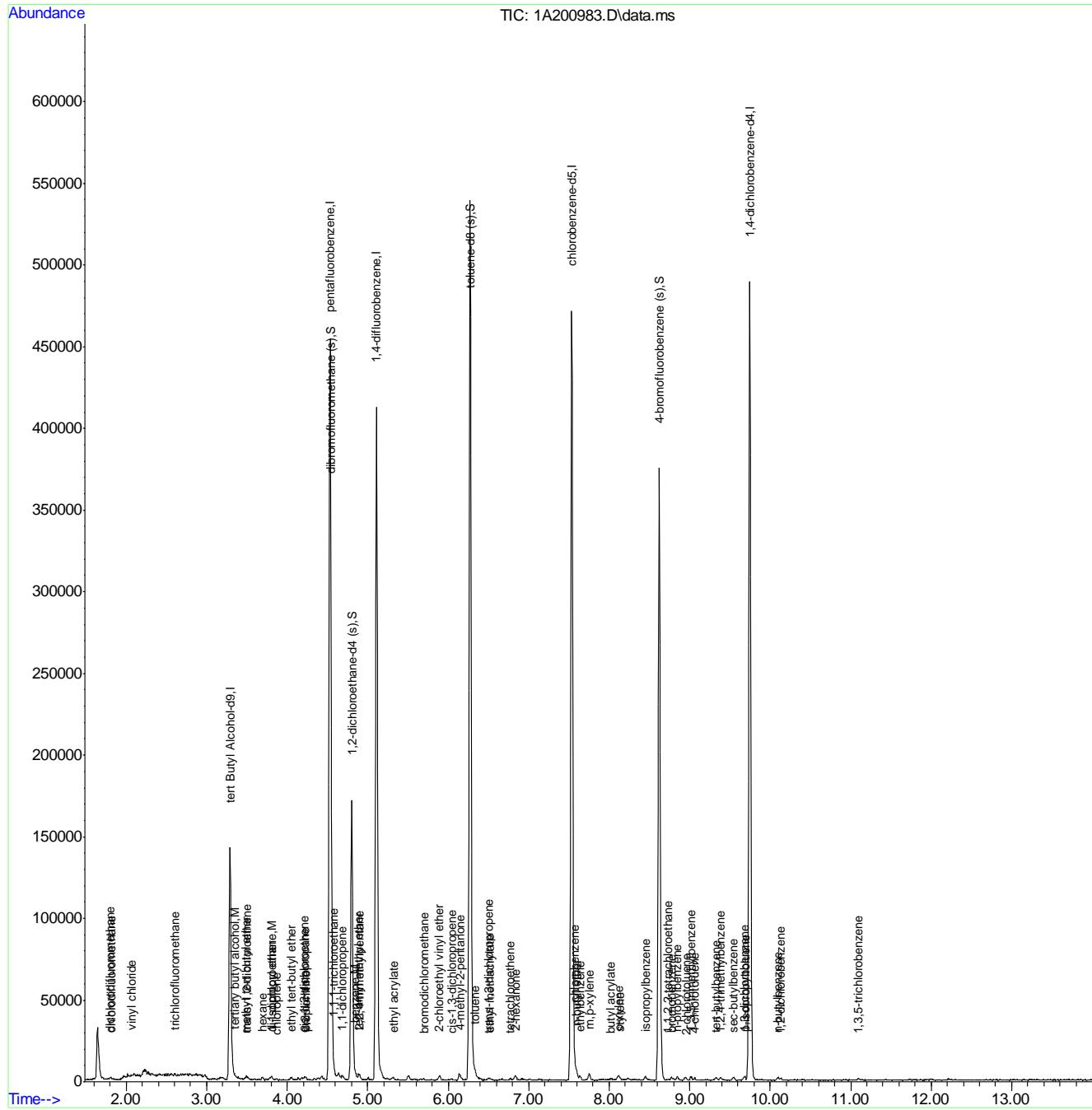
Quant Time: May 11 14:51:55 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

Last Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200984.D
 Acq On : 9 May 2020 5:07 pm
 Operator : PrashanS
 Sample : IC8665-0.5
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 11 14:54:15 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	135634	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	214945	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	303533	50.00	ug/L	0.00
72) chlorobenzene-d5	7.532	117	277108	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	135961	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.545	113	87562	49.03	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	98.06%		
52) 1,2-dichloroethane-d4 (s)	4.802	65	99292	47.46	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	94.92%		
73) toluene-d8 (s)	6.271	98	343778	51.18	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	102.36%		
97) 4-bromofluorobenzene (s)	8.620	95	122824	51.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	102.18%		
Target Compounds						
					Qvalue	
4) tertiary butyl alcohol	3.348	59	970	2.74	ug/L	87
6) chlorodifluoromethane	1.814	51	717	0.45	ug/L	55
7) dichlorodifluoromethane	1.808	85	1162	0.54	ug/L	75
8) chloromethane	1.965	50	984	0.62	ug/L	94
9) vinyl chloride	2.061	62	1065	0.56	ug/L	90
12) vinyl bromide	2.559	106	491	0.48	ug/L #	75
13) trichlorofluoromethane	2.604	101	1237	0.49	ug/L	94
14) ethyl ether	2.793	74	421	0.48	ug/L #	74
16) freon 113	2.973	151	503	0.43	ug/L	82
17) 1,1-dichloroethene	2.979	96	663	0.49	ug/L #	60
18) acetone	2.992	58	451	2.22	ug/L #	83
22) carbon disulfide	3.165	76	2144	0.60	ug/L	94
23) methylene chloride	3.322	84	922	0.59	ug/L	77
25) methyl tert butyl ether	3.492	73	2427	0.49	ug/L	95
26) trans-1,2-dichloroethene	3.499	96	795	0.50	ug/L #	69
27) hexane	3.691	57	1216	0.50	ug/L #	63
28) di-isopropyl ether	3.801	45	2609	0.50	ug/L	90
29) ethyl tert-butyl ether	4.057	59	2653	0.50	ug/L	88
30) 2-butanone	4.176	72	629	2.01	ug/L #	53
31) 1,1-dichloroethane	3.813	63	1265	0.44	ug/L	83
32) chloroprene	3.865	53	1113	0.46	ug/L	97
33) acrylonitrile	3.467	53	347	0.40	ug/L #	70
36) 2,2-dichloropropane	4.221	77	1282	0.55	ug/L	74
37) cis-1,2-dichloroethene	4.208	96	875	0.49	ug/L #	60
38) propionitrile	4.231	54	1963	5.31	ug/L	77
40) bromochloromethane	4.378	128	433	0.51	ug/L #	82
44) methacrylonitrile	4.340	67	498	0.53	ug/L #	44
45) 1,1,1-trichloroethane	4.580	97	1288	0.48	ug/L #	43
46) cyclohexane	4.635	84	1241	0.53	ug/L #	85
47) 1,1-dichloropropene	4.683	75	1143	0.51	ug/L	93
48) carbon tetrachloride	4.696	117	1059	0.45	ug/L #	81
50) tert amyl alcohol	4.779	55	312	2.40	ug/L #	52

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200984.D
 Acq On : 9 May 2020 5:07 pm
 Operator : PrashanS
 Sample : IC8665-0.5
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 11 14:54:15 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
53) tert-amyl methyl ether	4.898	73	2482	0.48	ug/L	96
54) 2,2,4-trimethylpentane	4.898	57	2598	0.53	ug/L	84
55) n-butyl alcohol	5.155	56	2131	23.28	ug/L	66
56) benzene	4.837	78	3253	0.51	ug/L	92
57) heptane	5.010	57	620	0.53	ug/L	# 74
58) 1,2-dichloroethane	4.853	62	1382	0.64	ug/L	78
59) trichloroethene	5.302	95	867	0.51	ug/L	# 65
60) ethyl acrylate	5.322	55	1536	0.54	ug/L	75
62) 2-chloroethyl vinyl ether	5.886	63	2526	2.14	ug/L	84
64) 1,2-dichloropropane	5.514	63	793	0.49	ug/L	77
65) methylcyclohexane	5.501	83	1531	0.53	ug/L	87
66) dibromomethane	5.578	93	452	0.44	ug/L	91
67) bromodichloromethane	5.700	83	1160	0.52	ug/L	88
68) cis-1,3-dichloropropene	6.040	75	1203	0.45	ug/L	92
69) epichlorohydrin	5.944	57	354	1.96	ug/L	# 59
70) 4-methyl-2-pentanone	6.140	58	1822	1.94	ug/L	# 89
74) toluene	6.329	92	1988	0.49	ug/L	98
75) trans-1,3-dichloropropene	6.493	75	1080	0.46	ug/L	88
76) ethyl methacrylate	6.512	69	1173	0.46	ug/L	94
77) 1,1,2-trichloroethane	6.669	83	738	0.58	ug/L	# 64
78) 2-hexanone	6.839	58	1912	2.01	ug/L	85
79) tetrachloroethene	6.769	166	952	0.49	ug/L	89
80) 1,3-dichloropropane	6.817	76	1307	0.52	ug/L	90
81) butyl acetate	6.916	56	735	0.51	ug/L	# 62
82) dibromochloromethane	7.013	129	771	0.45	ug/L	75
83) 1,2-dibromoethane	7.131	107	930	0.47	ug/L	95
84) n-butyl ether	7.593	57	3269	0.47	ug/L	85
85) chlorobenzene	7.561	112	2274	0.50	ug/L	94
86) 1,1,1,2-tetrachloroethane	7.642	131	799	0.50	ug/L	# 62
87) ethylbenzene	7.638	91	3820	0.49	ug/L	98
88) m,p-xylene	7.757	106	3061	1.02	ug/L	88
89) o-xylene	8.113	106	1530	0.52	ug/L	# 60
90) butyl acrylate	8.020	55	1763	0.47	ug/L	78
92) styrene	8.129	104	2670	0.53	ug/L	85
94) isopropylbenzene	8.450	105	3953	0.51	ug/L	87
98) bromobenzene	8.771	156	798	0.41	ug/L	# 74
99) 1,1,2,2-tetrachloroethane	8.726	83	1227	0.56	ug/L	85
101) 1,2,3-trichloropropane	8.800	110	312	0.45	ug/L	80
102) n-propylbenzene	8.842	91	4572	0.54	ug/L	97
103) 2-chlorotoluene	8.941	126	932	0.53	ug/L	# 74
104) 4-chlorotoluene	9.063	126	1031	0.58	ug/L	# 68
105) 1,3,5-trimethylbenzene	9.009	105	3164	0.52	ug/L	89
106) tert-butylbenzene	9.326	119	2732	0.52	ug/L	79
107) 1,2,4-trimethylbenzene	9.381	105	3060	0.50	ug/L	89
108) sec-butylbenzene	9.541	105	3573	0.47	ug/L	89
109) 1,3-dichlorobenzene	9.676	146	1840	0.52	ug/L	90
110) p-isopropyltoluene	9.692	119	3334	0.52	ug/L	92
111) 1,4-dichlorobenzene	9.766	146	1866	0.53	ug/L	82
112) 1,2-dichlorobenzene	10.132	146	1554	0.47	ug/L	95
113) n-butylbenzene	10.093	92	1368	0.44	ug/L	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200984.D
 Acq On : 9 May 2020 5:07 pm
 Operator : PrashanS
 Sample : IC8665-0.5
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 11 14:54:15 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
115) 1,3,5-trichlorobenzene	11.094	180	1268	0.52	ug/L	85
117) hexachlorobutadiene	11.865	225	444	0.50	ug/L	89
119) 1,2,3-trichlorobenzene	12.217	180	836	0.48	ug/L #	72

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200984.D
 Acq On : 9 May 2020 5:07 pm
 Operator : PrashanS
 Sample : IC8665-0.5
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 3 Sample Multiplier: 1

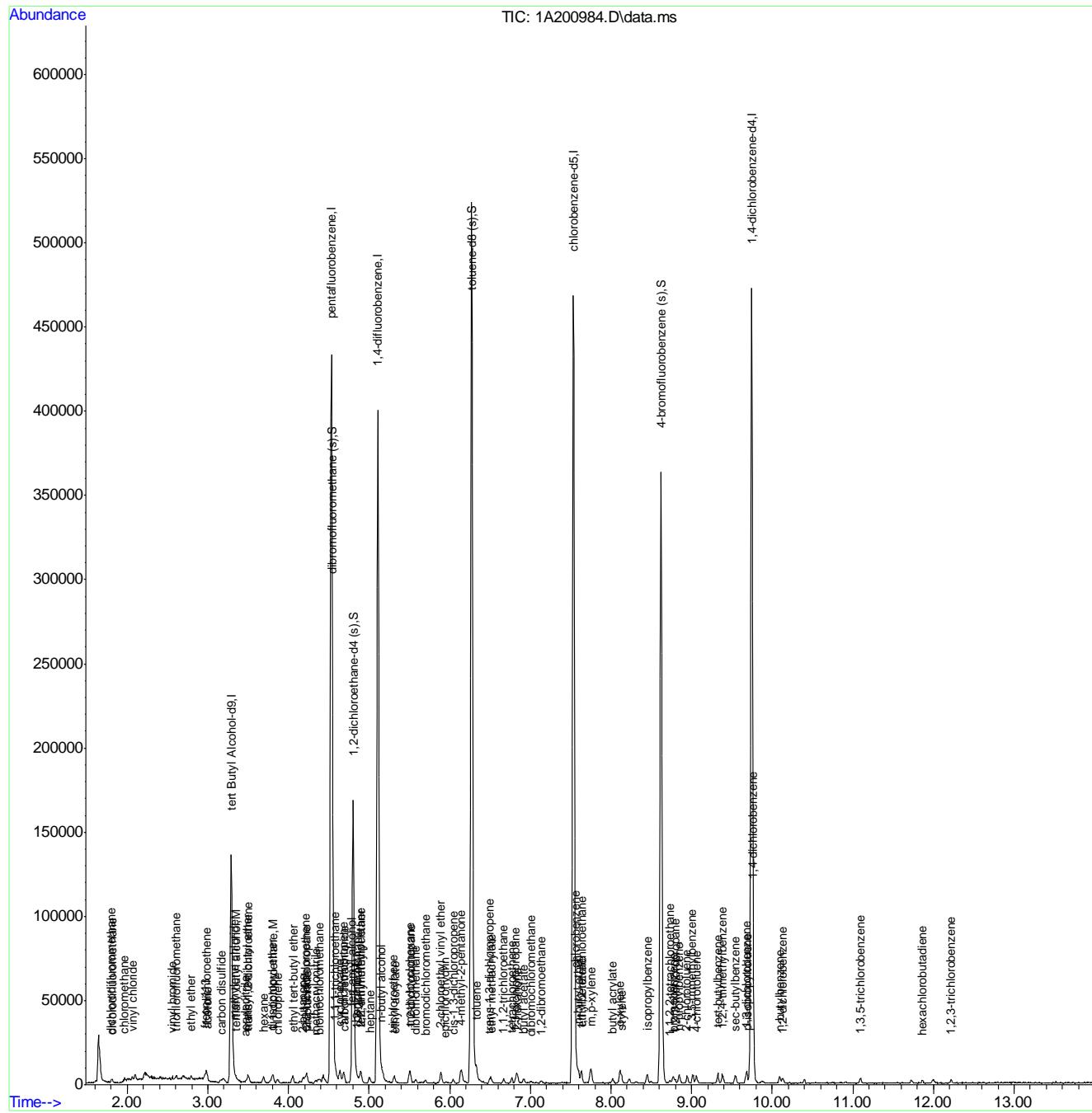
Quant Time: May 11 14:54:15 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200985.D
 Acq On : 9 May 2020 5:31 pm
 Operator : PrashanS
 Sample : IC8665-1
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 11 14:56:49 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	137916	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	215468	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	304303	50.00	ug/L	0.00
72) chlorobenzene-d5	7.536	117	277247	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.743	152	135931	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	88143	49.23	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	98.46%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	100906	48.11	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	96.22%	
73) toluene-d8 (s)	6.271	98	345697	51.44	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	102.88%	
97) 4-bromofluorobenzene (s)	8.620	95	124350	51.73	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	103.46%	
Target Compounds						
3) ethanol	2.694	45	3733	114.74	ug/L	97
4) tertiary butyl alcohol	3.355	59	1900	5.28	ug/L	90
6) chlorodifluoromethane	1.821	51	1621	1.02	ug/L	98
7) dichlorodifluoromethane	1.805	85	2388	1.10	ug/L	91
8) chloromethane	1.968	50	1753	1.10	ug/L	94
9) vinyl chloride	2.065	62	1898	1.00	ug/L	85
11) chloroethane	2.418	64	1261	1.21	ug/L	84
12) vinyl bromide	2.556	106	1117	1.09	ug/L #	77
13) trichlorofluoromethane	2.607	101	2420	0.95	ug/L	94
14) ethyl ether	2.793	74	931	1.06	ug/L #	73
16) freon 113	2.976	151	1075	0.92	ug/L	84
17) 1,1-dichloroethene	2.979	96	1449	1.06	ug/L	95
18) acetone	2.995	58	1036	5.08	ug/L	89
22) carbon disulfide	3.162	76	3706	1.04	ug/L	88
23) methylene chloride	3.316	84	1549	0.99	ug/L	95
24) methyl acetate	3.197	74	320	0.77	ug/L #	20
25) methyl tert butyl ether	3.493	73	4844	0.97	ug/L	94
26) trans-1,2-dichloroethene	3.509	96	1588	1.00	ug/L	96
27) hexane	3.691	57	2392	0.97	ug/L	89
28) di-isopropyl ether	3.807	45	5402	1.03	ug/L	88
29) ethyl tert-butyl ether	4.051	59	5485	1.02	ug/L	94
30) 2-butanone	4.179	72	1209	3.86	ug/L #	60
31) 1,1-dichloroethane	3.813	63	2827	0.99	ug/L	99
32) chloroprene	3.862	53	2226	0.92	ug/L	96
33) acrylonitrile	3.470	53	784	0.91	ug/L	85
34) vinyl acetate	3.785	86	397	1.00	ug/L #	41
35) ethyl acetate	4.186	45	367	0.87	ug/L #	76
36) 2,2-dichloropropane	4.218	77	2511	1.07	ug/L	85
37) cis-1,2-dichloroethene	4.208	96	1855	1.03	ug/L #	79
38) propionitrile	4.224	54	3708	10.00	ug/L	75
39) methyl acrylate	4.221	85	374	1.03	ug/L #	11
40) bromochloromethane	4.375	128	922	1.08	ug/L	88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200985.D
 Acq On : 9 May 2020 5:31 pm
 Operator : PrashanS
 Sample : IC8665-1
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 11 14:56:49 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) tetrahydrofuran	4.388	72	370	1.02	ug/L #	72
42) chloroform	4.426	83	4291	1.47	ug/L	78
44) methacrylonitrile	4.336	67	876	0.94	ug/L #	68
45) 1,1,1-trichloroethane	4.577	97	2777	1.04	ug/L	87
46) cyclohexane	4.641	84	2656	1.13	ug/L	87
47) 1,1-dichloropropene	4.683	75	2536	1.12	ug/L	89
48) carbon tetrachloride	4.696	117	2275	0.97	ug/L #	76
49) isopropyl acetate	4.799	87	488	0.93	ug/L #	9
50) tert amyl alcohol	4.766	55	632	4.85	ug/L #	43
53) tert-amyl methyl ether	4.895	73	5094	0.99	ug/L	93
54) 2,2,4-trimethylpentane	4.898	57	5076	1.04	ug/L	97
55) n-butyl alcohol	5.161	56	4019	43.80	ug/L	93
56) benzene	4.834	78	6554	1.03	ug/L	93
57) heptane	5.007	57	1190	1.01	ug/L	78
58) 1,2-dichloroethane	4.860	62	2645	1.21	ug/L	96
59) trichloroethene	5.302	95	1736	1.03	ug/L #	61
60) ethyl acrylate	5.322	55	2613	0.91	ug/L	95
62) 2-chloroethyl vinyl ether	5.890	63	5185	4.38	ug/L	93
63) methyl methacrylate	5.508	100	615	1.01	ug/L #	91
64) 1,2-dichloroproppane	5.508	63	1683	1.03	ug/L	93
65) methylcyclohexane	5.505	83	3047	1.04	ug/L	81
66) dibromomethane	5.582	93	975	0.95	ug/L	80
67) bromodichloromethane	5.697	83	2363	1.07	ug/L	71
68) cis-1,3-dichloropropene	6.040	75	2497	0.94	ug/L	91
69) epichlorohydrin	5.944	57	800	4.41	ug/L	91
70) 4-methyl-2-pentanone	6.137	58	3645	3.88	ug/L #	78
74) toluene	6.329	92	4476	1.09	ug/L	88
75) trans-1,3-dichloropropene	6.496	75	2068	0.88	ug/L	88
76) ethyl methacrylate	6.512	69	2297	0.91	ug/L	82
77) 1,1,2-trichloroethane	6.673	83	1187	0.94	ug/L	84
78) 2-hexanone	6.839	58	3706	3.89	ug/L	85
79) tetrachloroethene	6.766	166	2052	1.05	ug/L	91
80) 1,3-dichloropropane	6.817	76	2579	1.02	ug/L	97
81) butyl acetate	6.916	56	1459	1.01	ug/L	88
82) dibromochloromethane	7.003	129	1477	0.86	ug/L	79
83) 1,2-dibromoethane	7.131	107	2106	1.07	ug/L	84
84) n-butyl ether	7.597	57	7210	1.03	ug/L	95
85) chlorobenzene	7.565	112	4406	0.97	ug/L	95
86) 1,1,1,2-tetrachloroethane	7.629	131	1627	1.01	ug/L	93
87) ethylbenzene	7.638	91	8041	1.03	ug/L	99
88) m,p-xylene	7.744	106	6175	2.05	ug/L	92
89) o-xylene	8.110	106	3092	1.04	ug/L #	70
90) butyl acrylate	8.017	55	3160	0.84	ug/L	95
91) n-amyl acetate	8.222	70	1198	0.82	ug/L	92
92) styrene	8.126	104	5059	1.00	ug/L	92
93) bromoform	8.299	173	1091	0.88	ug/L	61
94) isopropylbenzene	8.450	105	7925	1.02	ug/L	98
98) bromobenzene	8.771	156	2044	1.05	ug/L	91
99) 1,1,2,2-tetrachloroethane	8.726	83	2164	0.99	ug/L	82
101) 1,2,3-trichloropropane	8.803	110	712	1.02	ug/L	87

M1A8665.M Wed May 13 09:12:29 2020 RPT1

Page: 2

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200985.D
 Acq On : 9 May 2020 5:31 pm
 Operator : PrashanS
 Sample : IC8665-1
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 11 14:56:49 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) n-propylbenzene	8.848	91	8992	1.06	ug/L	94
103) 2-chlorotoluene	8.944	126	2022	1.15	ug/L #	64
104) 4-chlorotoluene	9.063	126	1832	1.04	ug/L #	83
105) 1,3,5-trimethylbenzene	9.018	105	6051	1.00	ug/L	87
106) tert-butylbenzene	9.323	119	5590	1.06	ug/L	94
107) 1,2,4-trimethylbenzene	9.381	105	6379	1.04	ug/L	99
108) sec-butylbenzene	9.548	105	7915	1.05	ug/L	94
109) 1,3-dichlorobenzene	9.666	146	3488	0.98	ug/L	96
110) p-isopropyltoluene	9.692	119	6743	1.04	ug/L	95
111) 1,4-dichlorobenzene	9.776	146	3652	1.04	ug/L	95
112) 1,2-dichlorobenzene	10.129	146	3183	0.96	ug/L	95
113) n-butylbenzene	10.096	92	2900	0.94	ug/L #	73
115) 1,3,5-trichlorobenzene	11.091	180	2404	0.98	ug/L	93
116) 1,2,4-trichlorobenzene	11.723	180	1755	0.87	ug/L	97
117) hexachlorobutadiene	11.858	225	868	0.97	ug/L	78
119) 1,2,3-trichlorobenzene	12.211	180	1684	0.98	ug/L	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
Data File : 1A200985.D
Acq On : 9 May 2020 5:31 pm
Operator : PrashanS
Sample : IC8665-1
Misc : MS42950,V1A8665,w,,,1
ALS Vial : 4 Sample Multiplier: 1

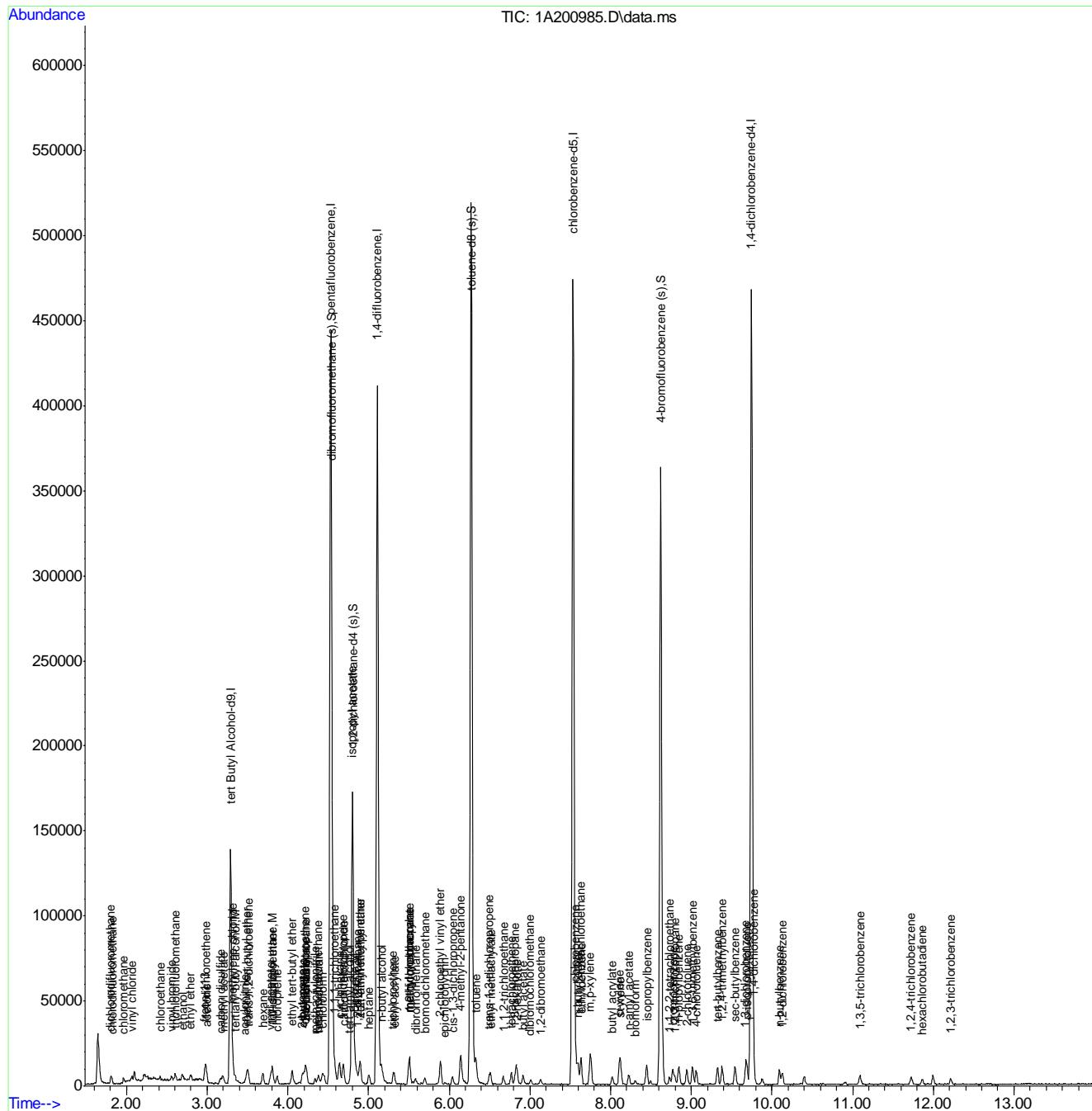
Quant Time: May 11 14:56:49 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

Last Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200986.D
 Acq On : 9 May 2020 5:56 pm
 Operator : PrashanS
 Sample : IC8665-2
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 11 14:57:37 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.291	65	133350	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	210992	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	300147	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	276483	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	133640	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	87064	49.66	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	99.32%	
52) 1,2-dichloroethane-d4 (s)	4.799	65	99403	48.05	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	96.10%	
73) toluene-d8 (s)	6.272	98	340128	50.75	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	101.50%	
97) 4-bromofluorobenzene (s)	8.621	95	122014	51.63	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	103.26%	
Target Compounds						
				Qvalue		
2) 1,4-dioxane	5.550	88	1840	56.87	ug/L	67
3) ethanol	2.694	45	7561	240.37	ug/L	99
4) tertiary butyl alcohol	3.352	59	3999	11.50	ug/L	92
6) chlorodifluoromethane	1.821	51	3500	2.25	ug/L	87
7) dichlorodifluoromethane	1.805	85	4040	1.90	ug/L	96
8) chloromethane	1.965	50	3296	2.11	ug/L	96
9) vinyl chloride	2.062	62	3770	2.04	ug/L	92
10) bromomethane	2.331	94	1265	2.55	ug/L	83
11) chloroethane	2.415	64	2281	2.24	ug/L	88
12) vinyl bromide	2.559	106	1987	1.97	ug/L	98
13) trichlorofluoromethane	2.604	101	4950	1.99	ug/L	96
14) ethyl ether	2.796	74	1691	1.96	ug/L	91
15) acrolein	2.902	56	1032	2.47	ug/L	72
16) freon 113	2.970	151	2401	2.09	ug/L	90
17) 1,1-dichloroethene	2.983	96	2842	2.13	ug/L	99
18) acetone	2.992	58	1831	9.17	ug/L	# 81
19) acetonitrile	3.191	40	3225	20.55	ug/L	81
20) iodomethane	3.101	142	594	0.62	ug/L	76
21) iso-butyl alcohol	4.677	43	2497	20.89	ug/L	81
22) carbon disulfide	3.165	76	7457	2.13	ug/L	91
23) methylene chloride	3.319	84	3175	2.08	ug/L	91
24) methyl acetate	3.198	74	741	1.83	ug/L	# 48
25) methyl tert butyl ether	3.486	73	9915	2.02	ug/L	95
26) trans-1,2-dichloroethene	3.512	96	3225	2.07	ug/L	94
27) hexane	3.692	57	5059	2.10	ug/L	91
28) di-isopropyl ether	3.801	45	10727	2.09	ug/L	97
29) ethyl tert-butyl ether	4.054	59	10993	2.09	ug/L	99
30) 2-butanone	4.179	72	2357	7.69	ug/L	# 81
31) 1,1-dichloroethane	3.814	63	5782	2.07	ug/L	96
32) chloroprene	3.862	53	4947	2.09	ug/L	94
33) acrylonitrile	3.477	53	1631	1.92	ug/L	88
34) vinyl acetate	3.778	86	760	1.96	ug/L	# 34

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200986.D
 Acq On : 9 May 2020 5:56 pm
 Operator : PrashanS
 Sample : IC8665-2
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 11 14:57:37 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl acetate	4.189	45	721	1.75	ug/L	# 61
36) 2,2-dichloropropane	4.221	77	5199	2.26	ug/L	91
37) cis-1,2-dichloroethene	4.202	96	3608	2.04	ug/L	98
38) propionitrile	4.228	54	7421	20.44	ug/L	92
39) methyl acrylate	4.240	85	753	2.11	ug/L	# 1
40) bromochloromethane	4.375	128	1720	2.05	ug/L	96
41) tetrahydrofuran	4.391	72	681	1.91	ug/L	# 80
42) chloroform	4.427	83	6946	2.42	ug/L	96
44) methacrylonitrile	4.333	67	1735	1.90	ug/L	97
45) 1,1,1-trichloroethane	4.577	97	5398	2.06	ug/L	94
46) cyclohexane	4.638	84	4861	2.12	ug/L	# 80
47) 1,1-dichloropropene	4.683	75	4660	2.10	ug/L	87
48) carbon tetrachloride	4.693	117	4427	1.93	ug/L	98
49) isopropyl acetate	4.796	87	913	1.78	ug/L	# 76
50) tert amyl alcohol	4.776	55	1410	11.04	ug/L	# 54
53) tert-amyl methyl ether	4.892	73	10840	2.13	ug/L	98
54) 2,2,4-trimethylpentane	4.898	57	10671	2.21	ug/L	93
55) n-butyl alcohol	5.165	56	7294	80.59	ug/L	97
56) benzene	4.837	78	13233	2.10	ug/L	97
57) heptane	5.004	57	2343	2.03	ug/L	99
58) 1,2-dichloroethane	4.860	62	4919	2.29	ug/L	86
59) trichloroethene	5.309	95	3432	2.06	ug/L	95
60) ethyl acrylate	5.319	55	5632	1.99	ug/L	95
61) 2-nitropropane	5.867	41	1108	2.10	ug/L	# 66
62) 2-chloroethyl vinyl ether	5.890	63	11177	9.57	ug/L	100
63) methyl methacrylate	5.505	100	1011	1.68	ug/L	# 87
64) 1,2-dichloropropane	5.508	63	3260	2.02	ug/L	100
65) methylcyclohexane	5.505	83	5604	1.95	ug/L	97
66) dibromomethane	5.582	93	2082	2.06	ug/L	96
67) bromodichloromethane	5.700	83	4238	1.94	ug/L	93
68) cis-1,3-dichloropropene	6.041	75	5175	1.97	ug/L	99
69) epichlorohydrin	5.944	57	1729	9.67	ug/L	92
70) 4-methyl-2-pentanone	6.140	58	7556	8.15	ug/L	96
71) 3-methyl-1-butanol	6.153	70	2711	32.09	ug/L	# 85
74) toluene	6.329	92	8572	2.10	ug/L	88
75) trans-1,3-dichloropropene	6.496	75	4146	1.76	ug/L	93
76) ethyl methacrylate	6.509	69	4789	1.90	ug/L	97
77) 1,1,2-trichloroethane	6.673	83	2634	2.09	ug/L	96
78) 2-hexanone	6.833	58	7706	8.11	ug/L	88
79) tetrachloroethene	6.769	166	4062	2.09	ug/L	98
80) 1,3-dichloropropane	6.817	76	5000	1.99	ug/L	84
81) butyl acetate	6.917	56	2931	2.03	ug/L	97
82) dibromochloromethane	7.010	129	3204	1.87	ug/L	88
83) 1,2-dibromoethane	7.128	107	3927	2.01	ug/L	97
84) n-butyl ether	7.594	57	14189	2.04	ug/L	99
85) chlorobenzene	7.558	112	9266	2.04	ug/L	91
86) 1,1,1,2-tetrachloroethane	7.629	131	3117	1.94	ug/L	97
87) ethylbenzene	7.635	91	16203	2.09	ug/L	97
88) m,p-xylene	7.745	106	12458	4.16	ug/L	85
89) o-xylene	8.104	106	6565	2.22	ug/L	# 73

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200986.D
 Acq On : 9 May 2020 5:56 pm
 Operator : PrashanS
 Sample : IC8665-2
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 11 14:57:37 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) butyl acrylate	8.017	55	6887	1.85	ug/L	95
91) n-amyl acetate	8.223	70	2730	1.88	ug/L	97
92) styrene	8.126	104	10370	2.06	ug/L	93
93) bromoform	8.303	173	2263	1.83	ug/L	91
94) isopropylbenzene	8.447	105	16363	2.12	ug/L	96
98) bromobenzene	8.771	156	4197	2.19	ug/L	96
99) 1,1,2,2-tetrachloroethane	8.726	83	4357	2.03	ug/L	99
101) 1,2,3-trichloropropane	8.797	110	1434	2.10	ug/L	72
102) n-propylbenzene	8.845	91	18202	2.18	ug/L	94
103) 2-chlorotoluene	8.945	126	3940	2.28	ug/L	89
104) 4-chlorotoluene	9.063	126	3840	2.21	ug/L	96
105) 1,3,5-trimethylbenzene	9.015	105	12911	2.17	ug/L	93
106) tert-butylbenzene	9.327	119	11152	2.15	ug/L	98
107) 1,2,4-trimethylbenzene	9.381	105	12734	2.12	ug/L	84
108) sec-butylbenzene	9.548	105	15767	2.12	ug/L	97
109) 1,3-dichlorobenzene	9.676	146	6991	2.00	ug/L	90
110) p-isopropyltoluene	9.689	119	13148	2.07	ug/L	95
111) 1,4-dichlorobenzene	9.773	146	7490	2.18	ug/L	91
112) 1,2-dichlorobenzene	10.129	146	6889	2.12	ug/L	94
113) n-butylbenzene	10.093	92	5923	1.95	ug/L	92
114) 1,2-dibromo-3-chloropr...	10.896	157	1057	1.78	ug/L	87
115) 1,3,5-trichlorobenzene	11.091	180	4692	1.94	ug/L	99
116) 1,2,4-trichlorobenzene	11.724	180	3718	1.87	ug/L	83
117) hexachlorobutadiene	11.865	225	1854	2.11	ug/L	87
118) naphthalene	11.993	128	10983	1.81	ug/L	98
119) 1,2,3-trichlorobenzene	12.215	180	3181	1.88	ug/L	88
120) hexachloroethane	10.405	119	1718	1.67	ug/L	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200986.D
 Acq On : 9 May 2020 5:56 pm
 Operator : PrashanS
 Sample : IC8665-2
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 5 Sample Multiplier: 1

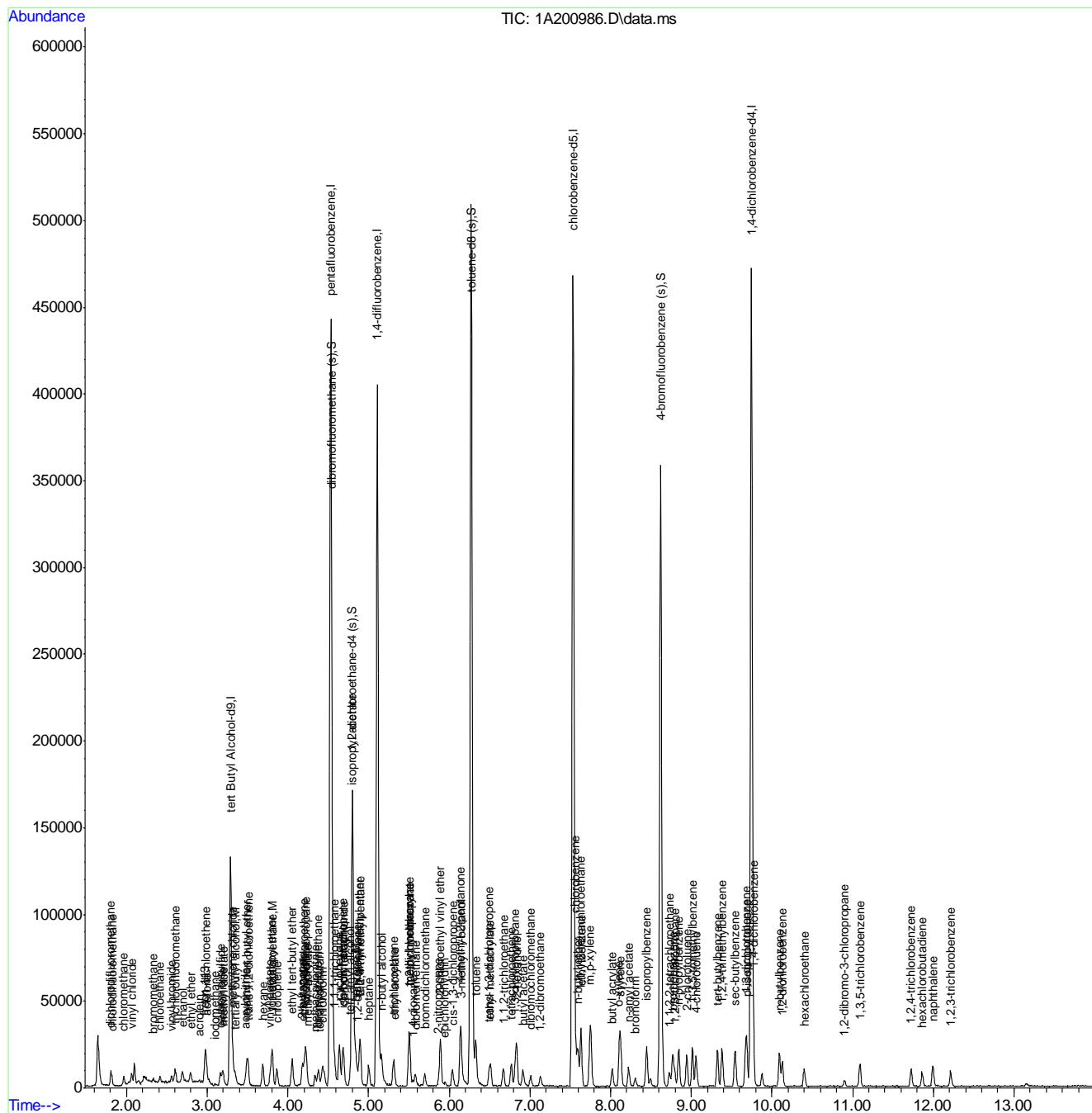
Quant Time: May 11 14:57:37 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200987.D
 Acq On : 9 May 2020 6:21 pm
 Operator : PrashanS
 Sample : IC8665-4
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 11 14:58:17 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	139706	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	210509	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	300929	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	272967	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.744	152	134006	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	87045	49.77	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	99.54%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	100416	48.42	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	96.84%	
73) toluene-d8 (s)	6.271	98	340959	51.53	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	103.06%	
97) 4-bromofluorobenzene (s)	8.620	95	121397	51.23	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	102.46%	
Target Compounds						
				Qvalue		
2) 1,4-dioxane	5.553	88	3662	108.03	ug/L	100
3) ethanol	2.694	45	14920	452.73	ug/L	96
4) tertiary butyl alcohol	3.351	59	7979	21.90	ug/L	94
6) chlorodifluoromethane	1.821	51	6716	4.34	ug/L	97
7) dichlorodifluoromethane	1.808	85	8102	3.83	ug/L	96
8) chloromethane	1.968	50	6182	3.97	ug/L	91
9) vinyl chloride	2.065	62	6947	3.76	ug/L	93
10) bromomethane	2.328	94	1885	3.82	ug/L	95
11) chloroethane	2.414	64	4233	4.17	ug/L	95
12) vinyl bromide	2.562	106	3853	3.83	ug/L	93
13) trichlorofluoromethane	2.607	101	9506	3.83	ug/L	87
14) ethyl ether	2.790	74	3468	4.03	ug/L	87
15) acrolein	2.899	56	1772	4.25	ug/L	# 55
16) freon 113	2.970	151	4565	3.98	ug/L	93
17) 1,1-dichloroethene	2.982	96	5490	4.13	ug/L	# 80
18) acetone	2.992	58	3516	17.66	ug/L	88
19) acetonitrile	3.191	40	6585	42.06	ug/L	84
20) iodomethane	3.104	142	1107	1.16	ug/L	81
21) iso-butyl alcohol	4.680	43	5354	44.90	ug/L	97
22) carbon disulfide	3.162	76	14185	4.06	ug/L	98
23) methylene chloride	3.316	84	6296	4.13	ug/L	96
24) methyl acetate	3.197	74	1650	4.08	ug/L	# 56
25) methyl tert butyl ether	3.493	73	19939	4.07	ug/L	96
26) trans-1,2-dichloroethene	3.509	96	6013	3.88	ug/L	90
27) hexane	3.692	57	9808	4.09	ug/L	94
28) di-isopropyl ether	3.804	45	20848	4.08	ug/L	95
29) ethyl tert-butyl ether	4.054	59	21699	4.14	ug/L	94
30) 2-butanone	4.176	72	4530	14.81	ug/L	95
31) 1,1-dichloroethane	3.813	63	11219	4.02	ug/L	95
32) chloroprene	3.868	53	9754	4.13	ug/L	93
33) acrylonitrile	3.470	53	3466	4.10	ug/L	96
34) vinyl acetate	3.781	86	1507	3.89	ug/L	# 66

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200987.D
 Acq On : 9 May 2020 6:21 pm
 Operator : PrashanS
 Sample : IC8665-4
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 11 14:58:17 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl acetate	4.186	45	1299	3.16	ug/L	# 61
36) 2,2-dichloropropane	4.221	77	9590	4.17	ug/L	97
37) cis-1,2-dichloroethene	4.208	96	7205	4.08	ug/L	95
38) propionitrile	4.227	54	14080	38.87	ug/L	94
39) methyl acrylate	4.227	85	1269	3.57	ug/L	98
40) bromochloromethane	4.375	128	3542	4.23	ug/L	83
41) tetrahydrofuran	4.391	72	1426	4.01	ug/L	# 81
42) chloroform	4.430	83	12636	4.42	ug/L	95
44) methacrylonitrile	4.340	67	3616	3.96	ug/L	83
45) 1,1,1-trichloroethane	4.580	97	10231	3.92	ug/L	96
46) cyclohexane	4.641	84	9667	4.22	ug/L	92
47) 1,1-dichloropropene	4.683	75	8922	4.03	ug/L	94
48) carbon tetrachloride	4.689	117	9140	4.00	ug/L	90
49) isopropyl acetate	4.795	87	2017	3.94	ug/L	# 62
50) tert amyl alcohol	4.779	55	2768	21.72	ug/L	# 92
53) tert-amyl methyl ether	4.895	73	21097	4.14	ug/L	98
54) 2,2,4-trimethylpentane	4.898	57	19993	4.13	ug/L	95
55) n-butyl alcohol	5.158	56	16446	181.24	ug/L	97
56) benzene	4.837	78	25639	4.06	ug/L	95
57) heptane	5.004	57	4690	4.04	ug/L	90
58) 1,2-dichloroethane	4.856	62	9497	4.41	ug/L	98
59) trichloroethene	5.309	95	6638	3.97	ug/L	95
60) ethyl acrylate	5.322	55	11129	3.93	ug/L	92
61) 2-nitropropane	5.864	41	2365	4.48	ug/L	# 74
62) 2-chloroethyl vinyl ether	5.890	63	22365	19.09	ug/L	98
63) methyl methacrylate	5.505	100	2184	3.62	ug/L	97
64) 1,2-dichloropropane	5.508	63	6336	3.91	ug/L	93
65) methylcyclohexane	5.498	83	11305	3.92	ug/L	98
66) dibromomethane	5.582	93	4236	4.18	ug/L	91
67) bromodichloromethane	5.697	83	8872	4.04	ug/L	89
68) cis-1,3-dichloropropene	6.044	75	9833	3.74	ug/L	93
69) epichlorohydrin	5.947	57	3830	21.36	ug/L	95
70) 4-methyl-2-pentanone	6.140	58	15428	16.59	ug/L	# 90
71) 3-methyl-1-butanol	6.153	70	6010	70.95	ug/L	91
74) toluene	6.332	92	16870	4.19	ug/L	90
75) trans-1,3-dichloropropene	6.496	75	8730	3.76	ug/L	96
76) ethyl methacrylate	6.512	69	9650	3.87	ug/L	98
77) 1,1,2-trichloroethane	6.666	83	5390	4.33	ug/L	89
78) 2-hexanone	6.836	58	15419	16.44	ug/L	97
79) tetrachloroethene	6.772	166	7950	4.14	ug/L	88
80) 1,3-dichloropropane	6.820	76	10191	4.11	ug/L	96
81) butyl acetate	6.916	56	5883	4.13	ug/L	91
82) dibromochloromethane	7.016	129	6448	3.81	ug/L	97
83) 1,2-dibromoethane	7.131	107	7860	4.06	ug/L	92
84) n-butyl ether	7.594	57	27560	4.01	ug/L	94
85) chlorobenzene	7.565	112	18719	4.18	ug/L	91
86) 1,1,1,2-tetrachloroethane	7.629	131	6647	4.18	ug/L	91
87) ethylbenzene	7.632	91	30941	4.04	ug/L	99
88) m,p-xylene	7.754	106	24951	8.43	ug/L	96
89) o-xylene	8.113	106	12250	4.20	ug/L	# 82

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200987.D
 Acq On : 9 May 2020 6:21 pm
 Operator : PrashanS
 Sample : IC8665-4
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 11 14:58:17 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) butyl acrylate	8.020	55	13930	3.78	ug/L	97
91) n-amyl acetate	8.226	70	5533	3.87	ug/L #	88
92) styrene	8.123	104	20492	4.12	ug/L	93
93) bromoform	8.309	173	4262	3.49	ug/L	94
94) isopropylbenzene	8.450	105	30955	4.06	ug/L	97
95) cis-1,4-dichloro-2-butene	8.502	88	2115	3.04	ug/L	87
98) bromobenzene	8.768	156	8170	4.25	ug/L	87
99) 1,1,2,2-tetrachloroethane	8.729	83	8661	4.02	ug/L	96
100) trans-1,4-dichloro-2-b...	8.762	53	2030	3.25	ug/L #	74
101) 1,2,3-trichloropropane	8.794	110	3188	4.66	ug/L	89
102) n-propylbenzene	8.845	91	35356	4.22	ug/L	98
103) 2-chlorotoluene	8.948	126	7382	4.26	ug/L	94
104) 4-chlorotoluene	9.060	126	7303	4.19	ug/L	98
105) 1,3,5-trimethylbenzene	9.015	105	25509	4.27	ug/L	97
106) tert-butylbenzene	9.326	119	22025	4.23	ug/L	98
107) 1,2,4-trimethylbenzene	9.381	105	24688	4.10	ug/L	98
108) sec-butylbenzene	9.545	105	30488	4.09	ug/L	99
109) 1,3-dichlorobenzene	9.673	146	14299	4.08	ug/L	90
110) p-isopropyltoluene	9.689	119	26648	4.18	ug/L	96
111) 1,4-dichlorobenzene	9.772	146	14087	4.08	ug/L	90
112) 1,2-dichlorobenzene	10.132	146	13345	4.09	ug/L	90
113) n-butylbenzene	10.087	92	12316	4.05	ug/L	84
114) 1,2-dibromo-3-chloropr...	10.899	157	2239	3.76	ug/L #	74
115) 1,3,5-trichlorobenzene	11.091	180	9679	3.99	ug/L	91
116) 1,2,4-trichlorobenzene	11.720	180	7750	3.89	ug/L	92
117) hexachlorobutadiene	11.865	225	3738	4.23	ug/L	94
118) naphthalene	11.996	128	22540	3.70	ug/L	94
119) 1,2,3-trichlorobenzene	12.214	180	6720	3.95	ug/L	97
120) hexachloroethane	10.398	119	3885	3.76	ug/L	81
121) benzyl chloride	9.878	91	11820	3.12	ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200987.D
 Acq On : 9 May 2020 6:21 pm
 Operator : PrashanS
 Sample : IC8665-4
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 6 Sample Multiplier: 1

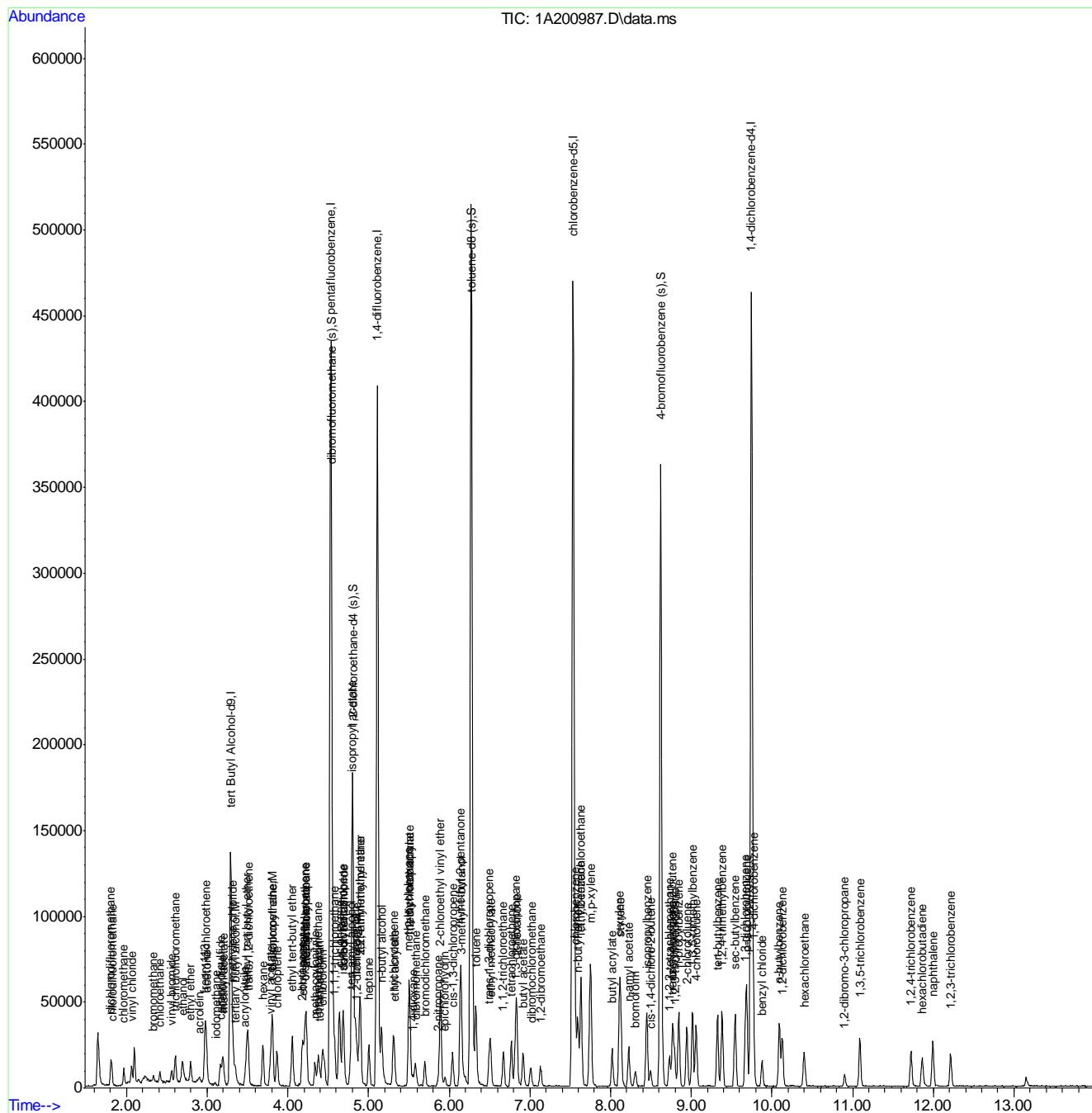
Quant Time: May 11 14:58:17 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200988.D
 Acq On : 9 May 2020 6:46 pm
 Operator : PrashanS
 Sample : IC8665-8
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 11 09:18:11 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	135798	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	210058	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	296495	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	271065	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.743	152	134840	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	86748	49.70	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	99.40%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	97698	47.81	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	95.62%	
73) toluene-d8 (s)	6.271	98	336440	51.20	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	102.40%	
97) 4-bromofluorobenzene (s)	8.620	95	120751	50.64	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	101.28%	
Target Compounds						
				Qvalue		
2) 1,4-dioxane	5.546	88	6440	195.45	ug/L	96
3) ethanol	2.697	45	27093	845.77	ug/L	97
4) tertiary butyl alcohol	3.345	59	15036	42.46	ug/L	96
6) chlorodifluoromethane	1.817	51	12546	8.12	ug/L	96
7) dichlorodifluoromethane	1.805	85	16012	7.58	ug/L	99
8) chloromethane	1.968	50	12618	8.12	ug/L	95
9) vinyl chloride	2.061	62	13706	7.44	ug/L	91
10) bromomethane	2.325	94	3974	8.06	ug/L	81
11) chloroethane	2.418	64	8220	8.12	ug/L	92
12) vinyl bromide	2.562	106	7835	7.81	ug/L	93
13) trichlorofluoromethane	2.604	101	18981	7.67	ug/L	97
14) ethyl ether	2.796	74	6760	7.87	ug/L	87
15) acrolein	2.902	56	3470	8.34	ug/L	98
16) freon 113	2.973	151	9174	8.02	ug/L	91
17) 1,1-dichloroethene	2.982	96	10871	8.19	ug/L	97
18) acetone	2.992	58	6336	31.89	ug/L	88
19) acetonitrile	3.191	40	12674	81.12	ug/L	98
20) iodomethane	3.104	142	3096	3.26	ug/L	99
21) iso-butyl alcohol	4.677	43	9809	82.44	ug/L	93
22) carbon disulfide	3.165	76	28924	8.29	ug/L	97
23) methylene chloride	3.319	84	12505	8.21	ug/L	92
24) methyl acetate	3.204	74	2950	7.31	ug/L	97
25) methyl tert butyl ether	3.493	73	38686	7.91	ug/L	97
26) trans-1,2-dichloroethene	3.512	96	12888	8.32	ug/L	93
27) hexane	3.688	57	19313	8.07	ug/L	98
28) di-isopropyl ether	3.801	45	41032	8.04	ug/L	98
29) ethyl tert-butyl ether	4.054	59	42621	8.14	ug/L	97
30) 2-butanone	4.179	72	9732	31.89	ug/L	99
31) 1,1-dichloroethane	3.810	63	23212	8.33	ug/L	100
32) chloroprene	3.868	53	19362	8.22	ug/L	98
33) acrylonitrile	3.467	53	6457	7.65	ug/L	97
34) vinyl acetate	3.785	86	3151	8.14	ug/L #	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200988.D
 Acq On : 9 May 2020 6:46 pm
 Operator : PrashanS
 Sample : IC8665-8
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 11 09:18:11 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl acetate	4.189	45	2737	6.67	ug/L	# 37
36) 2,2-dichloropropane	4.221	77	18790	8.19	ug/L	93
37) cis-1,2-dichloroethene	4.208	96	14151	8.04	ug/L	96
38) propionitrile	4.227	54	29102	80.52	ug/L	96
39) methyl acrylate	4.231	85	2875	8.11	ug/L	# 64
40) bromochloromethane	4.375	128	6926	8.30	ug/L	86
41) tetrahydrofuran	4.388	72	2958	8.34	ug/L	93
42) chloroform	4.430	83	24078	8.44	ug/L	96
44) methacrylonitrile	4.336	67	7074	7.76	ug/L	87
45) 1,1,1-trichloroethane	4.577	97	20544	7.89	ug/L	98
46) cyclohexane	4.638	84	18601	8.14	ug/L	99
47) 1,1-dichloropropene	4.683	75	18101	8.19	ug/L	100
48) carbon tetrachloride	4.693	117	17844	7.82	ug/L	95
49) isopropyl acetate	4.802	87	3923	7.69	ug/L	# 72
50) tert amyl alcohol	4.776	55	5229	41.12	ug/L	# 87
53) tert-amyl methyl ether	4.895	73	41106	8.19	ug/L	99
54) 2,2,4-trimethylpentane	4.895	57	39534	8.28	ug/L	99
55) n-butyl alcohol	5.164	56	34328	383.96	ug/L	95
56) benzene	4.834	78	51893	8.34	ug/L	99
57) heptane	5.004	57	9603	8.40	ug/L	87
58) 1,2-dichloroethane	4.856	62	17799	8.38	ug/L	90
59) trichloroethene	5.306	95	13502	8.21	ug/L	90
60) ethyl acrylate	5.318	55	21465	7.69	ug/L	96
61) 2-nitropropane	5.864	41	3582	6.88	ug/L	95
62) 2-chloroethyl vinyl ether	5.890	63	45405	39.35	ug/L	99
63) methyl methacrylate	5.505	100	4486	7.55	ug/L	97
64) 1,2-dichloropropane	5.511	63	12863	8.06	ug/L	100
65) methylcyclohexane	5.501	83	22480	7.91	ug/L	98
66) dibromomethane	5.578	93	8106	8.12	ug/L	97
67) bromodichloromethane	5.697	83	17650	8.17	ug/L	96
68) cis-1,3-dichloropropene	6.040	75	19484	7.52	ug/L	90
69) epichlorohydrin	5.947	57	6654	37.66	ug/L	97
70) 4-methyl-2-pentanone	6.137	58	29356	32.05	ug/L	92
71) 3-methyl-1-butanol	6.156	70	12192	146.08	ug/L	90
74) toluene	6.329	92	32646	8.17	ug/L	97
75) trans-1,3-dichloropropene	6.496	75	17491	7.58	ug/L	98
76) ethyl methacrylate	6.512	69	19614	7.92	ug/L	98
77) 1,1,2-trichloroethane	6.673	83	10171	8.22	ug/L	96
78) 2-hexanone	6.836	58	30960	33.25	ug/L	92
79) tetrachloroethene	6.772	166	15979	8.38	ug/L	97
80) 1,3-dichloropropane	6.817	76	20260	8.22	ug/L	98
81) butyl acetate	6.913	56	11402	8.06	ug/L	87
82) dibromochloromethane	7.013	129	13242	7.89	ug/L	92
83) 1,2-dibromoethane	7.135	107	15862	8.26	ug/L	94
84) n-butyl ether	7.594	57	55311	8.10	ug/L	100
85) chlorobenzene	7.561	112	37284	8.38	ug/L	93
86) 1,1,1,2-tetrachloroethane	7.629	131	12828	8.12	ug/L	96
87) ethylbenzene	7.635	91	64275	8.45	ug/L	96
88) m,p-xylene	7.751	106	49235	16.75	ug/L	96
89) o-xylene	8.113	106	24322	8.39	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200988.D
 Acq On : 9 May 2020 6:46 pm
 Operator : PrashanS
 Sample : IC8665-8
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 11 09:18:11 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) butyl acrylate	8.024	55	27941	7.63	ug/L	97
91) n-amyl acetate	8.226	70	11072	7.79	ug/L	97
92) styrene	8.126	104	40591	8.21	ug/L	97
93) bromoform	8.309	173	8971	7.39	ug/L	95
94) isopropylbenzene	8.447	105	61957	8.18	ug/L	99
95) cis-1,4-dichloro-2-butene	8.498	88	4616	6.68	ug/L #	79
98) bromobenzene	8.771	156	16101	8.32	ug/L	98
99) 1,1,2,2-tetrachloroethane	8.726	83	17720	8.18	ug/L	97
100) trans-1,4-dichloro-2-b...	8.768	53	4442	7.07	ug/L	98
101) 1,2,3-trichloropropane	8.797	110	5709	8.28	ug/L	100
102) n-propylbenzene	8.845	91	70220	8.33	ug/L	98
103) 2-chlorotoluene	8.948	126	14489	8.31	ug/L	86
104) 4-chlorotoluene	9.063	126	14707	8.38	ug/L	98
105) 1,3,5-trimethylbenzene	9.012	105	50404	8.39	ug/L	98
106) tert-butylbenzene	9.326	119	44291	8.46	ug/L	98
107) 1,2,4-trimethylbenzene	9.381	105	50304	8.30	ug/L	95
108) sec-butylbenzene	9.545	105	61150	8.16	ug/L	99
109) 1,3-dichlorobenzene	9.673	146	29108	8.25	ug/L	97
110) p-isopropyltoluene	9.689	119	53482	8.34	ug/L	98
111) 1,4-dichlorobenzene	9.769	146	28697	8.27	ug/L	92
112) 1,2-dichlorobenzene	10.132	146	26956	8.20	ug/L	96
113) n-butylbenzene	10.093	92	24218	7.92	ug/L	99
114) 1,2-dibromo-3-chloropr...	10.902	157	4547	7.59	ug/L	92
115) 1,3,5-trichlorobenzene	11.088	180	19325	7.93	ug/L	97
116) 1,2,4-trichlorobenzene	11.723	180	15525	7.75	ug/L	87
117) hexachlorobutadiene	11.861	225	7382	8.31	ug/L	91
118) naphthalene	11.993	128	46571	7.61	ug/L	100
119) 1,2,3-trichlorobenzene	12.214	180	13786	8.06	ug/L	94
120) hexachloroethane	10.398	119	7362	7.09	ug/L	92
121) benzyl chloride	9.878	91	25498	6.69	ug/L	99
122) 2-ethylhexyl acrylate	11.893	70	1278	1.11	ug/L #	64
123) 2-methylnaphthalene	13.151	142	7461	3.03	ug/L	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200988.D
 Acq On : 9 May 2020 6:46 pm
 Operator : PrashanS
 Sample : IC8665-8
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 7 Sample Multiplier: 1

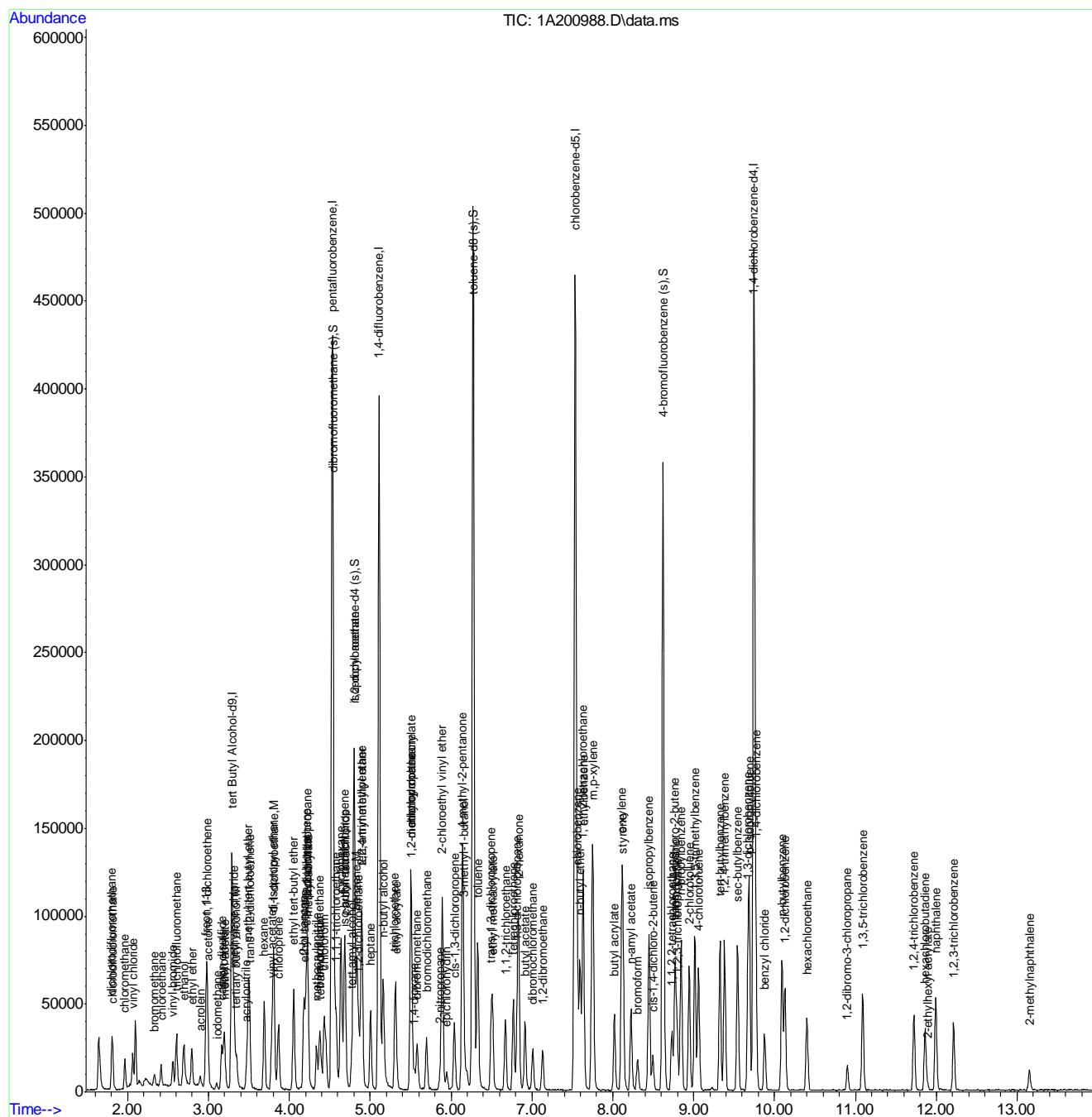
Quant Time: May 11 09:18:11 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200989.D
 Acq On : 9 May 2020 7:10 pm
 Operator : PrashanS
 Sample : IC8665-20
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 11 09:18:48 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	138740	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	205449	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	295487	50.00	ug/L	0.00
72) chlorobenzene-d5	7.536	117	273402	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	134333	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	84571	49.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	99.08%		
52) 1,2-dichloroethane-d4 (s)	4.802	65	98526	48.38	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	96.76%		
73) toluene-d8 (s)	6.271	98	333592	50.34	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	100.68%		
97) 4-bromofluorobenzene (s)	8.620	95	122012	51.36	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	102.72%		
Target Compounds						
				Qvalue		
2) 1,4-dioxane	5.549	88	17063	506.87	ug/L	92
3) ethanol	2.693	45	67773	2070.83	ug/L	98
4) tertiary butyl alcohol	3.351	59	36512	100.93	ug/L	97
6) chlorodifluoromethane	1.817	51	31678	20.96	ug/L	97
7) dichlorodifluoromethane	1.805	85	42594	20.63	ug/L	99
8) chloromethane	1.965	50	32316	21.27	ug/L	96
9) vinyl chloride	2.065	62	37773	20.96	ug/L	98
10) bromomethane	2.328	94	9842	20.41	ug/L	96
11) chloroethane	2.411	64	20396	20.60	ug/L	96
12) vinyl bromide	2.559	106	20615	21.00	ug/L	99
13) trichlorofluoromethane	2.604	101	49456	20.43	ug/L	99
14) ethyl ether	2.793	74	17195	20.46	ug/L	95
15) acrolein	2.899	56	8074	19.84	ug/L	91
16) freon 113	2.973	151	22948	20.51	ug/L	100
17) 1,1-dichloroethene	2.982	96	27335	21.06	ug/L	99
18) acetone	2.992	58	16078	82.73	ug/L	# 82
19) acetonitrile	3.191	40	31454	205.84	ug/L	97
20) iodomethane	3.101	142	12652	13.62	ug/L	98
21) iso-butyl alcohol	4.677	43	25620	220.15	ug/L	96
22) carbon disulfide	3.162	76	69921	20.49	ug/L	99
23) methylene chloride	3.319	84	30861	20.72	ug/L	98
24) methyl acetate	3.207	74	7861	19.92	ug/L	# 78
25) methyl tert butyl ether	3.493	73	97768	20.45	ug/L	98
26) trans-1,2-dichloroethene	3.509	96	31543	20.83	ug/L	95
27) hexane	3.691	57	48536	20.73	ug/L	93
28) di-isopropyl ether	3.804	45	101028	20.24	ug/L	94
29) ethyl tert-butyl ether	4.054	59	104552	20.43	ug/L	98
30) 2-butanone	4.176	72	23368	78.29	ug/L	98
31) 1,1-dichloroethane	3.810	63	55629	20.41	ug/L	95
32) chloroprene	3.865	53	48164	20.90	ug/L	97
33) acrylonitrile	3.470	53	16818	20.37	ug/L	96
34) vinyl acetate	3.778	86	8257	21.82	ug/L	# 80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200989.D
 Acq On : 9 May 2020 7:10 pm
 Operator : PrashanS
 Sample : IC8665-20
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 11 09:18:48 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl acetate	4.182	45	7393	18.43	ug/L	88
36) 2,2-dichloropropane	4.218	77	47511	21.18	ug/L	97
37) cis-1,2-dichloroethene	4.205	96	36128	20.98	ug/L	96
38) propionitrile	4.227	54	72963	206.40	ug/L	92
39) methyl acrylate	4.231	85	7079	20.41	ug/L	98
40) bromochloromethane	4.375	128	16784	20.56	ug/L	97
41) tetrahydrofuran	4.388	72	7102	20.48	ug/L	84
42) chloroform	4.430	83	57970	20.77	ug/L	99
44) methacrylonitrile	4.336	67	17659	19.81	ug/L	95
45) 1,1,1-trichloroethane	4.577	97	51807	20.34	ug/L	98
46) cyclohexane	4.635	84	46874	20.98	ug/L	92
47) 1,1-dichloropropene	4.683	75	43541	20.14	ug/L	97
48) carbon tetrachloride	4.689	117	45431	20.35	ug/L	96
49) isopropyl acetate	4.799	87	9899	19.83	ug/L #	88
50) tert amyl alcohol	4.776	55	12860	103.41	ug/L	98
53) tert-amyl methyl ether	4.892	73	102577	20.52	ug/L	98
54) 2,2,4-trimethylpentane	4.898	57	98372	20.68	ug/L	97
55) n-butyl alcohol	5.161	56	89573	1005.30	ug/L	99
56) benzene	4.834	78	127087	20.49	ug/L	99
57) heptane	5.001	57	23652	20.77	ug/L	91
58) 1,2-dichloroethane	4.856	62	44541	21.04	ug/L	99
59) trichloroethene	5.306	95	33402	20.37	ug/L	98
60) ethyl acrylate	5.318	55	55532	19.97	ug/L	98
61) 2-nitropropane	5.864	41	11386	21.95	ug/L	88
62) 2-chloroethyl vinyl ether	5.890	63	115127	100.10	ug/L	98
63) methyl methacrylate	5.505	100	12051	20.36	ug/L	98
64) 1,2-dichloropropane	5.511	63	32238	20.26	ug/L	95
65) methylcyclohexane	5.505	83	56292	19.88	ug/L	98
66) dibromomethane	5.578	93	20593	20.69	ug/L	97
67) bromodichloromethane	5.697	83	44602	20.70	ug/L	99
68) cis-1,3-dichloropropene	6.040	75	52001	20.13	ug/L	98
69) epichlorohydrin	5.947	57	18219	103.46	ug/L	94
70) 4-methyl-2-pentanone	6.140	58	75610	82.82	ug/L	98
71) 3-methyl-1-butanol	6.156	70	32176	386.84	ug/L	94
74) toluene	6.329	92	82745	20.52	ug/L	96
75) trans-1,3-dichloropropene	6.496	75	46369	19.93	ug/L	97
76) ethyl methacrylate	6.512	69	50605	20.26	ug/L	98
77) 1,1,2-trichloroethane	6.669	83	25330	20.30	ug/L	94
78) 2-hexanone	6.833	58	79751	84.92	ug/L	100
79) tetrachloroethene	6.769	166	40183	20.89	ug/L	96
80) 1,3-dichloropropane	6.820	76	51441	20.70	ug/L	99
81) butyl acetate	6.916	56	29584	20.73	ug/L	99
82) dibromochloromethane	7.013	129	34207	20.20	ug/L	99
83) 1,2-dibromoethane	7.135	107	39994	20.65	ug/L	98
84) n-butyl ether	7.593	57	140619	20.42	ug/L	99
85) chlorobenzene	7.561	112	93181	20.77	ug/L	99
86) 1,1,1,2-tetrachloroethane	7.629	131	33000	20.72	ug/L	93
87) ethylbenzene	7.635	91	159583	20.80	ug/L	98
88) m,p-xylene	7.748	106	125010	42.17	ug/L	99
89) o-xylene	8.110	106	60503	20.70	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200989.D
 Acq On : 9 May 2020 7:10 pm
 Operator : PrashanS
 Sample : IC8665-20
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 11 09:18:48 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) butyl acrylate	8.020	55	74138	20.09	ug/L	99
91) n-amyl acetate	8.226	70	28333	19.76	ug/L	93
92) styrene	8.123	104	104499	20.96	ug/L	97
93) bromoform	8.306	173	23462	19.15	ug/L	97
94) isopropylbenzene	8.447	105	158884	20.79	ug/L	99
95) cis-1,4-dichloro-2-butene	8.495	88	12780	18.33	ug/L	98
98) bromobenzene	8.768	156	39961	20.72	ug/L	98
99) 1,1,2,2-tetrachloroethane	8.733	83	44125	20.44	ug/L	96
100) trans-1,4-dichloro-2-b...	8.768	53	12199	19.50	ug/L	98
101) 1,2,3-trichloropropane	8.797	110	14641	21.33	ug/L	92
102) n-propylbenzene	8.845	91	179242	21.34	ug/L	97
103) 2-chlorotoluene	8.944	126	36953	21.27	ug/L	94
104) 4-chlorotoluene	9.063	126	36229	20.73	ug/L	92
105) 1,3,5-trimethylbenzene	9.015	105	124502	20.79	ug/L	99
106) tert-butylbenzene	9.326	119	110088	21.10	ug/L	98
107) 1,2,4-trimethylbenzene	9.381	105	127336	21.10	ug/L	99
108) sec-butylbenzene	9.545	105	156131	20.91	ug/L	99
109) 1,3-dichlorobenzene	9.673	146	71372	20.31	ug/L	97
110) p-isopropyltoluene	9.689	119	133433	20.89	ug/L	99
111) 1,4-dichlorobenzene	9.769	146	70699	20.44	ug/L	99
112) 1,2-dichlorobenzene	10.129	146	66725	20.39	ug/L	95
113) n-butylbenzene	10.090	92	61339	20.13	ug/L	99
114) 1,2-dibromo-3-chloropr...	10.902	157	11560	19.36	ug/L	86
115) 1,3,5-trichlorobenzene	11.088	180	49828	20.51	ug/L	97
116) 1,2,4-trichlorobenzene	11.727	180	39635	19.85	ug/L	99
117) hexachlorobutadiene	11.858	225	18495	20.90	ug/L	96
118) naphthalene	11.993	128	124078	20.34	ug/L	98
119) 1,2,3-trichlorobenzene	12.214	180	34921	20.49	ug/L	95
120) hexachloroethane	10.401	119	20132	19.46	ug/L	98
121) benzyl chloride	9.875	91	70149	18.48	ug/L	97
122) 2-ethylhexyl acrylate	11.890	70	3964	3.45	ug/L #	85
123) 2-methylnaphthalene	13.155	142	20943	8.53	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
Data File : 1A200989.D
Acq On : 9 May 2020 7:10 pm
Operator : PrashanS
Sample : IC8665-20
Misc : MS42950,V1A8665,w,,,1
ALS Vial : 8 Sample Multiplier: 1

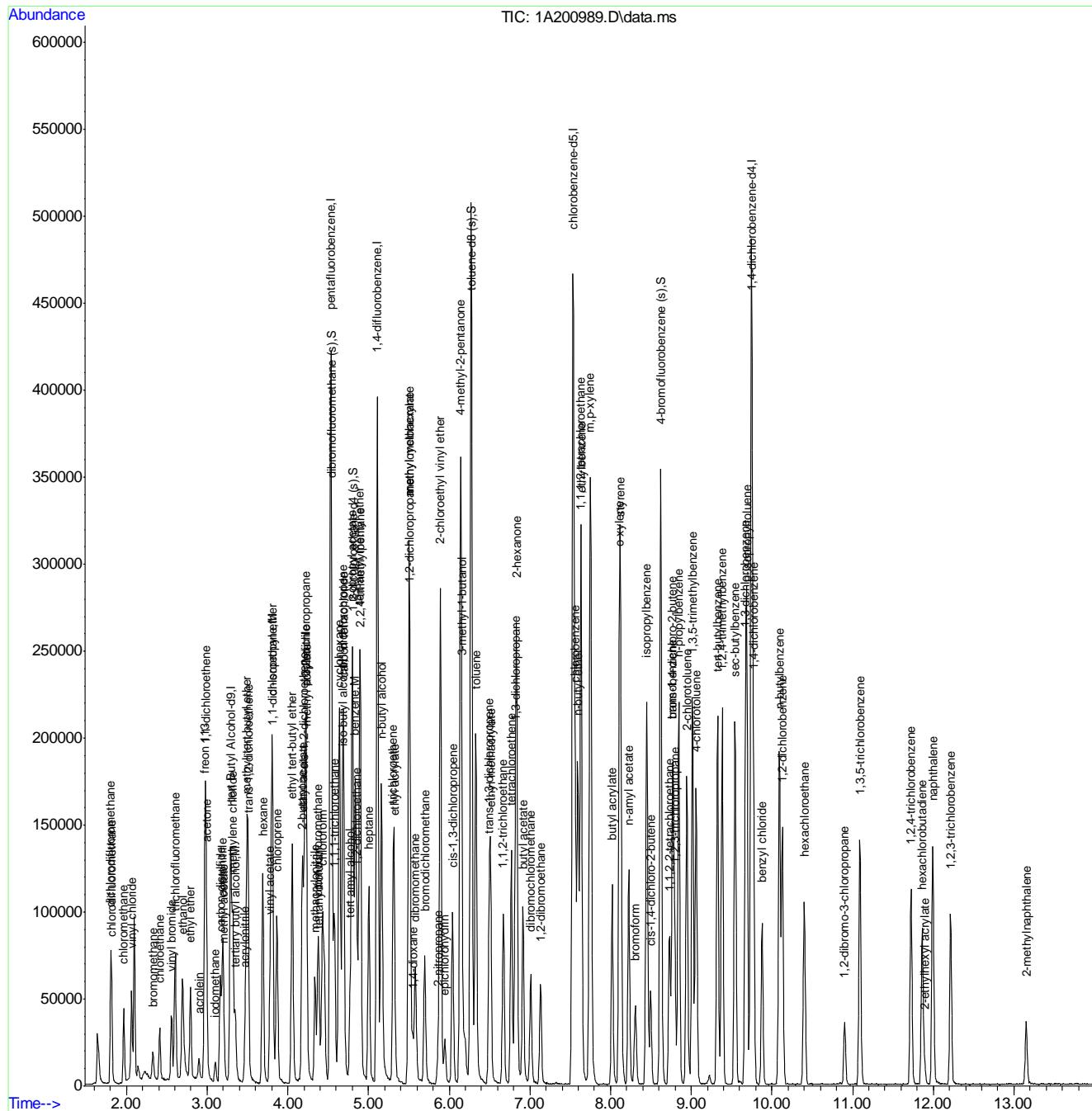
Quant Time: May 11 09:18:48 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

Last Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200990.D
 Acq On : 9 May 2020 7:35 pm
 Operator : PrashanS
 Sample : ICC8665-50
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 11 09:19:02 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.291	65	134854	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	205319	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	297720	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	278693	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	140020	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	85299	50.00	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.00%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	102596	50.00	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	100.00%	
73) toluene-d8 (s)	6.272	98	337776	50.00	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.00%	
97) 4-bromofluorobenzene (s)	8.621	95	123799	50.00	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.00%	
Target Compounds						
2) 1,4-dioxane	5.546	88	40901	1250.00	ug/L	100
3) ethanol	2.697	45	159054	5000.00	ug/L	100
4) tertiary butyl alcohol	3.348	59	87910	250.00	ug/L	100
6) chlorodifluoromethane	1.814	51	75522	50.00	ug/L	100
7) dichlorodifluoromethane	1.805	85	103186	50.00	ug/L	100
8) chloromethane	1.965	50	75934	50.00	ug/L	100
9) vinyl chloride	2.062	62	90066	50.00	ug/L	100
10) bromomethane	2.318	94	24090	50.00	ug/L	100
11) chloroethane	2.408	64	49481	50.00	ug/L	100
12) vinyl bromide	2.556	106	49046	50.00	ug/L	100
13) trichlorofluoromethane	2.601	101	120944	50.00	ug/L	100
14) ethyl ether	2.790	74	41998	50.00	ug/L	100
15) acrolein	2.899	56	20337	50.00	ug/L	100
16) freon 113	2.973	151	55904	50.00	ug/L	100
17) 1,1-dichloroethene	2.979	96	64848	50.00	ug/L	100
18) acetone	2.989	58	38843	200.00	ug/L	100
19) acetonitrile	3.188	40	76356	500.00	ug/L	100
20) iodomethane	3.101	142	46421	50.00	ug/L	100
21) iso-butyl alcohol	4.680	43	58150	500.00	ug/L	100
22) carbon disulfide	3.159	76	170507	50.00	ug/L	100
23) methylene chloride	3.316	84	74424	50.00	ug/L	100
24) methyl acetate	3.204	74	19722	50.00	ug/L	100
25) methyl tert butyl ether	3.493	73	238881	50.00	ug/L	100
26) trans-1,2-dichloroethene	3.509	96	75668	50.00	ug/L	100
27) hexane	3.688	57	117004	50.00	ug/L	100
28) di-isopropyl ether	3.801	45	249456	50.00	ug/L	100
29) ethyl tert-butyl ether	4.054	59	255766	50.00	ug/L	100
30) 2-butanone	4.176	72	59657	200.00	ug/L	100
31) 1,1-dichloroethane	3.810	63	136218	50.00	ug/L	100
32) chloroprene	3.862	53	115173	50.00	ug/L	100
33) acrylonitrile	3.467	53	41264	50.00	ug/L	100
34) vinyl acetate	3.782	86	18908	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200990.D
 Acq On : 9 May 2020 7:35 pm
 Operator : PrashanS
 Sample : ICC8665-50
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 11 09:19:02 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl acetate	4.183	45	20041	50.00	ug/L	100
36) 2,2-dichloropropane	4.218	77	112088	50.00	ug/L	100
37) cis-1,2-dichloroethene	4.205	96	86064	50.00	ug/L	100
38) propionitrile	4.228	54	176640	500.00	ug/L	100
39) methyl acrylate	4.231	85	17335	50.00	ug/L	100
40) bromochloromethane	4.375	128	40789	50.00	ug/L	100
41) tetrahydrofuran	4.391	72	17329	50.00	ug/L	100
42) chloroform	4.427	83	139472	50.00	ug/L	100
44) methacrylonitrile	4.337	67	44536	50.00	ug/L	100
45) 1,1,1-trichloroethane	4.577	97	127245	50.00	ug/L	100
46) cyclohexane	4.635	84	111645	50.00	ug/L	100
47) 1,1-dichloropropene	4.683	75	108043	50.00	ug/L	100
48) carbon tetrachloride	4.690	117	111532	50.00	ug/L	100
49) isopropyl acetate	4.796	87	24939	50.00	ug/L	100
50) tert amyl alcohol	4.776	55	31071	250.00	ug/L	100
53) tert-amyl methyl ether	4.892	73	251875	50.00	ug/L	100
54) 2,2,4-trimethylpentane	4.895	57	239592	50.00	ug/L	100
55) n-butyl alcohol	5.161	56	224436	2500.00	ug/L	100
56) benzene	4.837	78	312532	50.00	ug/L	100
57) heptane	5.004	57	57370	50.00	ug/L	100
58) 1,2-dichloroethane	4.857	62	106647	50.00	ug/L	100
59) trichloroethene	5.306	95	82608	50.00	ug/L	100
60) ethyl acrylate	5.319	55	140108	50.00	ug/L	100
61) 2-nitropropane	5.864	41	33597	64.29	ug/L	99
62) 2-chloroethyl vinyl ether	5.890	63	289697	250.00	ug/L	100
63) methyl methacrylate	5.502	100	29816	50.00	ug/L	100
64) 1,2-dichloropropane	5.511	63	80159	50.00	ug/L	100
65) methylcyclohexane	5.505	83	142642	50.00	ug/L	100
66) dibromomethane	5.579	93	50137	50.00	ug/L	100
67) bromodichloromethane	5.697	83	108526	50.00	ug/L	100
68) cis-1,3-dichloropropene	6.041	75	130116	50.00	ug/L	100
69) epichlorohydrin	5.944	57	44358	250.00	ug/L	100
70) 4-methyl-2-pentanone	6.140	58	183966	200.00	ug/L	100
71) 3-methyl-1-butanol	6.153	70	83805	1000.00	ug/L	100
74) toluene	6.329	92	205491	50.00	ug/L	100
75) trans-1,3-dichloropropene	6.496	75	118564	50.00	ug/L	100
76) ethyl methacrylate	6.512	69	127317	50.00	ug/L	100
77) 1,1,2-trichloroethane	6.670	83	63610	50.00	ug/L	100
78) 2-hexanone	6.833	58	191456	200.00	ug/L	100
79) tetrachloroethene	6.769	166	98054	50.00	ug/L	100
80) 1,3-dichloropropane	6.820	76	126654	50.00	ug/L	100
81) butyl acetate	6.913	56	72733	50.00	ug/L	100
82) dibromochloromethane	7.010	129	86301	50.00	ug/L	100
83) 1,2-dibromoethane	7.132	107	98709	50.00	ug/L	100
84) n-butyl ether	7.594	57	350965	50.00	ug/L	100
85) chlorobenzene	7.562	112	228608	50.00	ug/L	100
86) 1,1,1,2-tetrachloroethane	7.629	131	81166	50.00	ug/L	100
87) ethylbenzene	7.635	91	391050	50.00	ug/L	100
88) m,p-xylene	7.751	106	302201	100.00	ug/L	100
89) o-xylene	8.110	106	148994	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200990.D
 Acq On : 9 May 2020 7:35 pm
 Operator : PrashanS
 Sample : ICC8665-50
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 11 09:19:02 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) butyl acrylate	8.017	55	188130	50.00	ug/L	100
91) n-amyl acetate	8.226	70	73070	50.00	ug/L	100
92) styrene	8.123	104	254070	50.00	ug/L	100
93) bromoform	8.306	173	62430	50.00	ug/L	100
94) isopropylbenzene	8.447	105	389554	50.00	ug/L	100
95) cis-1,4-dichloro-2-butene	8.495	88	35542	50.00	ug/L	100
98) bromobenzene	8.771	156	100523	50.00	ug/L	100
99) 1,1,2,2-tetrachloroethane	8.730	83	112484	50.00	ug/L	100
100) trans-1,4-dichloro-2-b...	8.765	53	32610	50.00	ug/L	100
101) 1,2,3-trichloropropane	8.794	110	35778	50.00	ug/L	100
102) n-propylbenzene	8.845	91	437721	50.00	ug/L	100
103) 2-chlorotoluene	8.945	126	90559	50.00	ug/L	100
104) 4-chlorotoluene	9.063	126	91078	50.00	ug/L	100
105) 1,3,5-trimethylbenzene	9.015	105	312106	50.00	ug/L	100
106) tert-butylbenzene	9.327	119	271914	50.00	ug/L	100
107) 1,2,4-trimethylbenzene	9.381	105	314525	50.00	ug/L	100
108) sec-butylbenzene	9.545	105	389077	50.00	ug/L	100
109) 1,3-dichlorobenzene	9.673	146	183139	50.00	ug/L	100
110) p-isopropyltoluene	9.689	119	332885	50.00	ug/L	100
111) 1,4-dichlorobenzene	9.769	146	180229	50.00	ug/L	100
112) 1,2-dichlorobenzene	10.129	146	170579	50.00	ug/L	100
113) n-butylbenzene	10.090	92	158807	50.00	ug/L	100
114) 1,2-dibromo-3-chloropr...	10.902	157	31116	50.00	ug/L	100
115) 1,3,5-trichlorobenzene	11.091	180	126594	50.00	ug/L	100
116) 1,2,4-trichlorobenzene	11.724	180	104074	50.00	ug/L	100
117) hexachlorobutadiene	11.865	225	46128	50.00	ug/L	100
118) naphthalene	11.993	128	317949	50.00	ug/L	100
119) 1,2,3-trichlorobenzene	12.215	180	88832	50.00	ug/L	100
120) hexachloroethane	10.402	119	53926	50.00	ug/L	100
121) benzyl chloride	9.878	91	197844	50.00	ug/L	100
122) 2-ethylhexyl acrylate	11.887	70	11966	10.00	ug/L	100
123) 2-methylnaphthalene	13.152	142	64008	25.00	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
Data File : 1A200990.D
Acq On : 9 May 2020 7:35 pm
Operator : PrashanS
Sample : ICC8665-50
Misc : MS42950,V1A8665,w,,,1
ALS Vial : 9 Sample Multiplier: 1

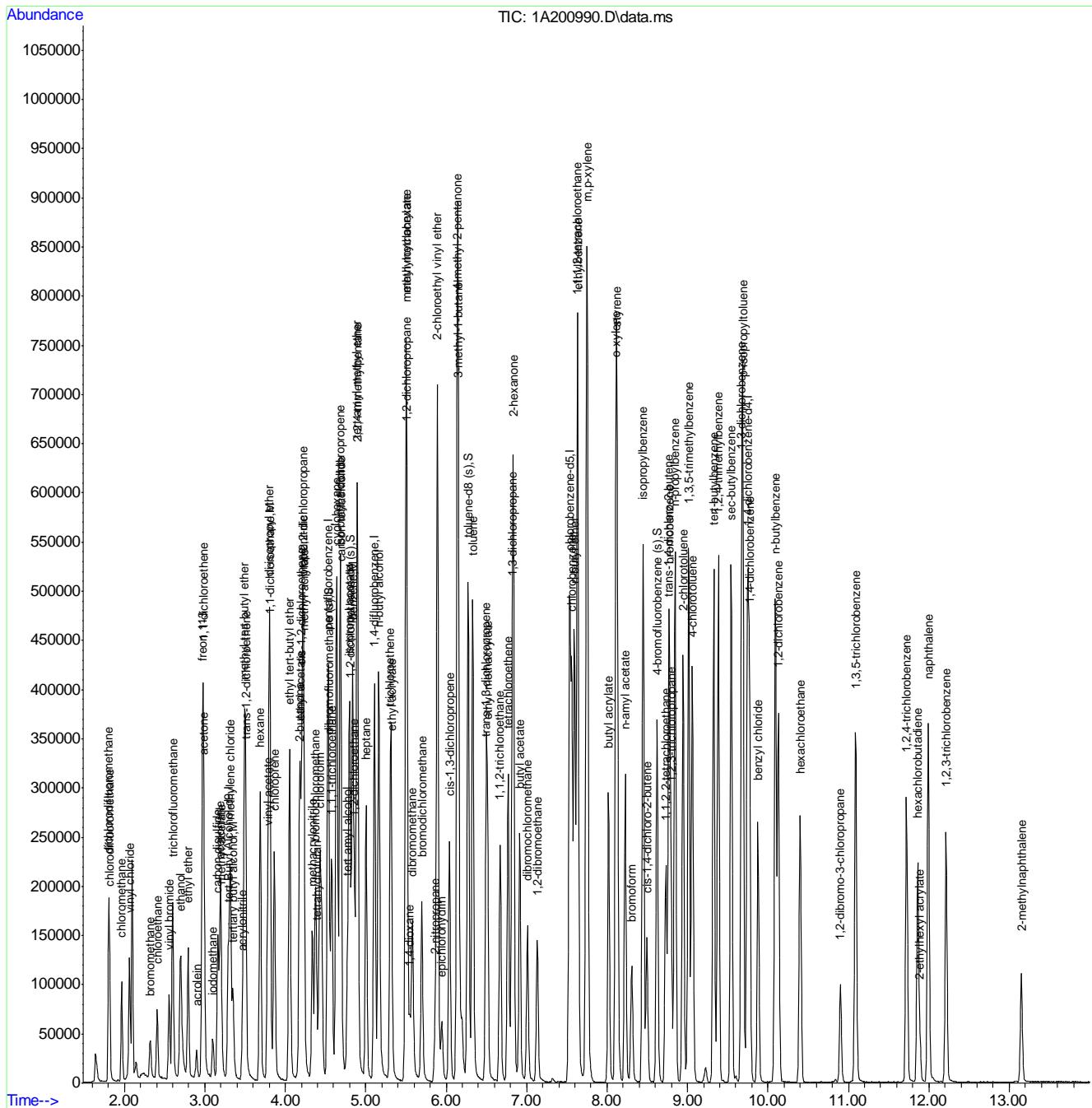
Quant Time: May 11 09:19:02 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

Last Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200991.D
 Acq On : 9 May 2020 8:00 pm
 Operator : PrashanS
 Sample : IC8665-100
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 11 09:19:13 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.293	65	126519	500.00	ug/L	0.00
5) pentafluorobenzene	4.526	168	201972	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.107	114	292574	50.00	ug/L	0.00
72) chlorobenzene-d5	7.532	117	282894	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	138436	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.539	113	83913	50.00	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.00%	
52) 1,2-dichloroethane-d4 (s)	4.798	65	91649	45.45	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	90.90%	
73) toluene-d8 (s)	6.271	98	331111	48.29	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	96.58%	
97) 4-bromofluorobenzene (s)	8.620	95	127951	52.27	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	104.54%	
Target Compounds						
				Qvalue		
2) 1,4-dioxane	5.549	88	83460	2718.71	ug/L	98
3) ethanol	2.706	45	302851	10147.58	ug/L	96
4) tertiary butyl alcohol	3.351	59	175499	531.97	ug/L	92
6) chlorodifluoromethane	1.814	51	162484	109.36	ug/L	97
7) dichlorodifluoromethane	1.801	85	217241	107.01	ug/L	99
8) chloromethane	1.965	50	155845	104.32	ug/L	100
9) vinyl chloride	2.061	62	190981	107.78	ug/L	99
10) bromomethane	2.308	94	52780	111.36	ug/L	97
11) chloroethane	2.398	64	99436	102.14	ug/L	98
12) vinyl bromide	2.549	106	102457	106.18	ug/L	98
13) trichlorofluoromethane	2.597	101	246334	103.53	ug/L	97
14) ethyl ether	2.790	74	86174	104.29	ug/L	93
15) acrolein	2.896	56	43620	109.02	ug/L	92
16) freon 113	2.966	151	112589	102.37	ug/L	91
17) 1,1-dichloroethene	2.976	96	135302	106.05	ug/L	97
18) acetone	2.992	58	79803	417.71	ug/L	99
19) acetonitrile	3.191	40	154747	1030.12	ug/L	97
20) iodomethane	3.095	142	120963	132.45	ug/L	98
21) iso-butyl alcohol	4.683	43	129631	1133.10	ug/L	97
22) carbon disulfide	3.159	76	356174	106.18	ug/L	99
23) methylene chloride	3.313	84	156026	106.56	ug/L	98
24) methyl acetate	3.200	74	39862	102.73	ug/L	97
25) methyl tert butyl ether	3.489	73	489874	104.23	ug/L	100
26) trans-1,2-dichloroethene	3.505	96	157212	105.60	ug/L	98
27) hexane	3.685	57	249313	108.31	ug/L	99
28) di-isopropyl ether	3.801	45	515163	104.97	ug/L	97
29) ethyl tert-butyl ether	4.051	59	532044	105.73	ug/L	99
30) 2-butanone	4.176	72	120470	410.57	ug/L	93
31) 1,1-dichloroethane	3.807	63	280431	104.64	ug/L	99
32) chloroprene	3.861	53	238914	105.44	ug/L	98
33) acrylonitrile	3.470	53	84600	104.21	ug/L	95
34) vinyl acetate	3.781	86	40786	109.64	ug/L	# 91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200991.D
 Acq On : 9 May 2020 8:00 pm
 Operator : PrashanS
 Sample : IC8665-100
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 11 09:19:13 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl acetate	4.182	45	39732	100.77	ug/L	90
36) 2,2-dichloropropane	4.218	77	230157	104.37	ug/L	99
37) cis-1,2-dichloroethene	4.205	96	178165	105.22	ug/L	98
38) propionitrile	4.227	54	358085	1030.40	ug/L	98
39) methyl acrylate	4.227	85	35411	103.83	ug/L	97
40) bromochloromethane	4.375	128	80848	100.75	ug/L	98
41) tetrahydrofuran	4.388	72	35492	104.10	ug/L	99
42) chloroform	4.426	83	286698	104.48	ug/L	96
44) methacrylonitrile	4.333	67	92111	105.13	ug/L	98
45) 1,1,1-trichloroethane	4.577	97	266709	106.54	ug/L	98
46) cyclohexane	4.635	84	229708	104.58	ug/L	97
47) 1,1-dichloropropene	4.683	75	220275	103.63	ug/L	99
48) carbon tetrachloride	4.689	117	229405	104.55	ug/L	98
49) isopropyl acetate	4.798	87	50126	102.16	ug/L	95
50) tert amyl alcohol	4.779	55	60168	492.14	ug/L #	86
53) tert-amyl methyl ether	4.892	73	518678	104.77	ug/L	98
54) 2,2,4-trimethylpentane	4.895	57	500205	106.22	ug/L	98
55) n-butyl alcohol	5.168	56	461668	5232.99	ug/L	99
56) benzene	4.834	78	643812	104.81	ug/L	99
57) heptane	5.004	57	121153	107.45	ug/L	94
58) 1,2-dichloroethane	4.856	62	216888	103.47	ug/L	98
59) trichloroethene	5.306	95	172838	106.45	ug/L	100
60) ethyl acrylate	5.318	55	290795	105.60	ug/L	100
61) 2-nitropropane	5.864	41	73442	143.01	ug/L	100
62) 2-chloroethyl vinyl ether	5.890	63	603651	530.10	ug/L	99
63) methyl methacrylate	5.501	100	61652	105.21	ug/L	98
64) 1,2-dichloropropane	5.508	63	166275	105.54	ug/L	100
65) methylcyclohexane	5.501	83	295513	105.41	ug/L	98
66) dibromomethane	5.578	93	104428	105.97	ug/L	98
67) bromodichloromethane	5.697	83	236864	111.05	ug/L	98
68) cis-1,3-dichloropropene	6.040	75	277812	108.63	ug/L	99
69) epichlorohydrin	5.947	57	93386	535.58	ug/L	97
70) 4-methyl-2-pentanone	6.140	58	385632	426.62	ug/L	93
71) 3-methyl-1-butanol	6.156	70	170516	2070.46	ug/L	95
74) toluene	6.329	92	435160	104.31	ug/L	98
75) trans-1,3-dichloropropene	6.496	75	256417	106.53	ug/L	96
76) ethyl methacrylate	6.512	69	267906	103.65	ug/L	98
77) 1,1,2-trichloroethane	6.669	83	136262	105.52	ug/L	98
78) 2-hexanone	6.833	58	399172	410.79	ug/L	99
79) tetrachloroethene	6.769	166	207229	104.10	ug/L	96
80) 1,3-dichloropropane	6.817	76	267182	103.91	ug/L	99
81) butyl acetate	6.913	56	154923	104.92	ug/L	94
82) dibromochloromethane	7.009	129	189433	108.12	ug/L	99
83) 1,2-dibromoethane	7.131	107	211206	105.40	ug/L	99
84) n-butyl ether	7.593	57	750533	105.34	ug/L	100
85) chlorobenzene	7.561	112	494828	106.62	ug/L	100
86) 1,1,1,2-tetrachloroethane	7.629	131	173250	105.14	ug/L	96
87) ethylbenzene	7.635	91	825036	103.92	ug/L	100
88) m,p-xylene	7.751	106	647722	211.15	ug/L	99
89) o-xylene	8.110	106	324120	107.15	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200991.D
 Acq On : 9 May 2020 8:00 pm
 Operator : PrashanS
 Sample : IC8665-100
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 11 09:19:13 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) butyl acrylate	8.017	55	415545	108.80	ug/L	100
91) n-amyl acetate	8.222	70	155108	104.56	ug/L	99
92) styrene	8.126	104	548251	106.29	ug/L	99
93) bromoform	8.306	173	137910	108.81	ug/L	94
94) isopropylbenzene	8.447	105	846020	106.98	ug/L	99
95) cis-1,4-dichloro-2-butene	8.495	88	83940	116.33	ug/L	96
98) bromobenzene	8.771	156	216116	108.73	ug/L	95
99) 1,1,2,2-tetrachloroethane	8.729	83	240855	108.29	ug/L	96
100) trans-1,4-dichloro-2-b...	8.768	53	70578	109.45	ug/L	88
101) 1,2,3-trichloropropane	8.797	110	75108	106.16	ug/L	94
102) n-propylbenzene	8.845	91	949099	109.65	ug/L	99
103) 2-chlorotoluene	8.944	126	197313	110.19	ug/L	98
104) 4-chlorotoluene	9.060	126	194736	108.13	ug/L	92
105) 1,3,5-trimethylbenzene	9.015	105	678600	109.96	ug/L	98
106) tert-butylbenzene	9.326	119	599646	111.53	ug/L	98
107) 1,2,4-trimethylbenzene	9.381	105	668396	107.47	ug/L	98
108) sec-butylbenzene	9.544	105	843597	109.65	ug/L	99
109) 1,3-dichlorobenzene	9.673	146	386119	106.62	ug/L	98
110) p-isopropyltoluene	9.689	119	709332	107.76	ug/L	99
111) 1,4-dichlorobenzene	9.769	146	383210	107.53	ug/L	98
112) 1,2-dichlorobenzene	10.128	146	361898	107.29	ug/L	99
113) n-butylbenzene	10.090	92	343550	109.40	ug/L	97
114) 1,2-dibromo-3-chloropr...	10.902	157	69313	112.65	ug/L	95
115) 1,3,5-trichlorobenzene	11.088	180	279985	111.85	ug/L	96
116) 1,2,4-trichlorobenzene	11.723	180	233567	113.50	ug/L	99
117) hexachlorobutadiene	11.861	225	100561	110.25	ug/L	96
118) naphthalene	11.993	128	689693	109.70	ug/L	100
119) 1,2,3-trichlorobenzene	12.214	180	201708	114.83	ug/L	99
120) hexachloroethane	10.401	119	120819	113.30	ug/L	97
121) benzyl chloride	9.878	91	446085	114.03	ug/L	99
122) 2-ethylhexyl acrylate	11.890	70	28383	23.99	ug/L	94
123) 2-methylnaphthalene	13.148	142	146362	57.82	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
Data File : 1A200991.D
Acq On : 9 May 2020 8:00 pm
Operator : PrashanS
Sample : IC8665-100
Misc : MS42950,V1A8665,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

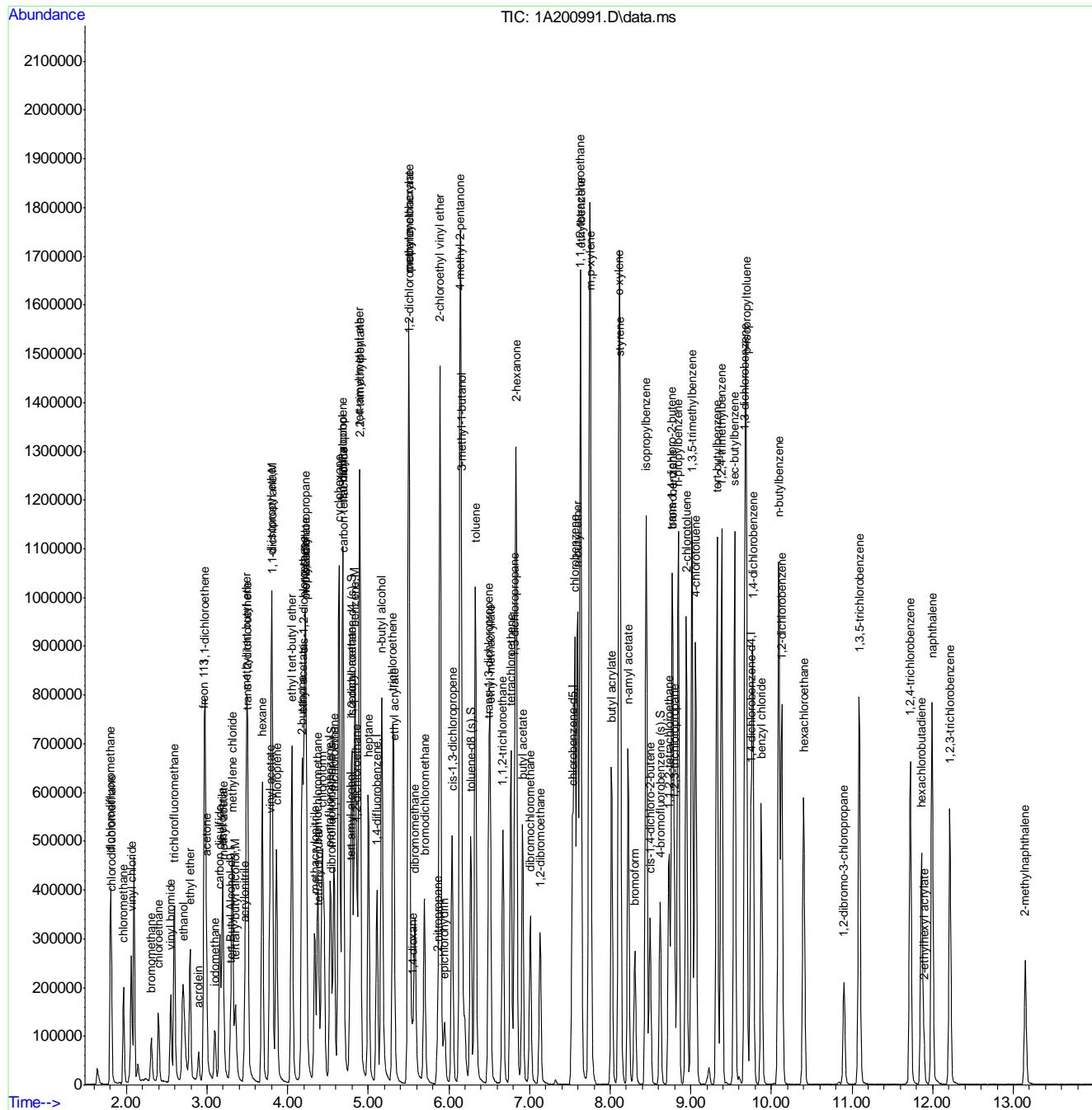
Quant Time: May 11 09:19:13 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

Last Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200992.D
 Acq On : 9 May 2020 8:25 pm
 Operator : PrashanS
 Sample : IC8665-200
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 11 09:19:30 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.306	65	122768	500.00	ug/L	0.02
5) pentafluorobenzene	4.529	168	194624	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	284746	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	272942	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	136287	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	81459	50.37	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.74%	
52) 1,2-dichloroethane-d4 (s)	4.799	65	86928	44.29	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	88.58%	
73) toluene-d8 (s)	6.271	98	321215	48.55	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	97.10%	
97) 4-bromofluorobenzene (s)	8.620	95	122088	50.66	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	101.32%	
Target Compounds						
				Qvalue		
2) 1,4-dioxane	5.556	88	167778	5632.35	ug/L	98
3) ethanol	2.726	45	523220	18067.10	ug/L	96
4) tertiary butyl alcohol	3.364	59	333390	1041.44	ug/L	88
6) chlorodifluoromethane	1.814	51	310849	217.11	ug/L	98
7) dichlorodifluoromethane	1.801	85	415647	212.47	ug/L	99
8) chloromethane	1.965	50	321880	223.59	ug/L	98
9) vinyl chloride	2.061	62	364836	213.67	ug/L	99
10) bromomethane	2.299	94	83376	182.56	ug/L	98
11) chloroethane	2.385	64	168482	179.60	ug/L	99
12) vinyl bromide	2.543	106	186130	200.18	ug/L	96
13) trichlorofluoromethane	2.588	101	458820	200.11	ug/L	99
14) ethyl ether	2.787	74	165578	207.96	ug/L	92
15) acrolein	2.896	56	81446	211.24	ug/L	97
16) freon 113	2.963	151	213074	201.04	ug/L	90
17) 1,1-dichloroethene	2.973	96	246702	200.67	ug/L	98
18) acetone	2.992	58	151362	822.18	ug/L	94
19) acetonitrile	3.191	40	301578	2083.34	ug/L	94
20) iodomethane	3.095	142	261151	296.74	ug/L	95
21) iso-butyl alcohol	4.699	43	241472	2190.38	ug/L	96
22) carbon disulfide	3.156	76	697710	215.84	ug/L	98
23) methylene chloride	3.313	84	296023	209.80	ug/L	98
24) methyl acetate	3.197	74	76576	204.81	ug/L	98
25) methyl tert butyl ether	3.489	73	930193	205.40	ug/L	99
26) trans-1,2-dichloroethene	3.502	96	294917	205.58	ug/L	97
27) hexane	3.682	57	483269	217.87	ug/L	98
28) di-isopropyl ether	3.801	45	968707	204.83	ug/L	96
29) ethyl tert-butyl ether	4.051	59	1020715	210.51	ug/L	99
30) 2-butanone	4.179	72	230278	814.43	ug/L	# 80
31) 1,1-dichloroethane	3.807	63	526951	204.05	ug/L	99
32) chloroprene	3.862	53	447271	204.84	ug/L	98
33) acrylonitrile	3.470	53	165012	210.93	ug/L	96
34) vinyl acetate	3.778	86	77465	216.10	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200992.D
 Acq On : 9 May 2020 8:25 pm
 Operator : PrashanS
 Sample : IC8665-200
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 11 09:19:30 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl acetate	4.182	45	74738	196.71	ug/L	# 76
36) 2,2-dichloropropane	4.215	77	432192	203.39	ug/L	99
37) cis-1,2-dichloroethene	4.202	96	331669	203.28	ug/L	98
38) propionitrile	4.231	54	666863	1991.36	ug/L	93
39) methyl acrylate	4.231	85	65633	199.71	ug/L	99
40) bromochloromethane	4.372	128	153731	198.80	ug/L	97
41) tetrahydrofuran	4.388	72	67647	205.91	ug/L	94
42) chloroform	4.426	83	540537	204.43	ug/L	99
44) methacrylonitrile	4.336	67	175745	208.15	ug/L	96
45) 1,1,1-trichloroethane	4.574	97	509800	211.33	ug/L	98
46) cyclohexane	4.635	84	444937	210.21	ug/L	98
47) 1,1-dichloropropene	4.680	75	421095	205.58	ug/L	99
48) carbon tetrachloride	4.689	117	431323	203.99	ug/L	99
49) isopropyl acetate	4.799	87	97041	205.25	ug/L	# 91
50) tert amyl alcohol	4.792	55	108028	916.97	ug/L	# 62
53) tert-amyl methyl ether	4.892	73	981854	203.79	ug/L	100
54) 2,2,4-trimethylpentane	4.895	57	947065	206.65	ug/L	98
55) n-butyl alcohol	5.180	56	906952	10562.88	ug/L	98
56) benzene	4.834	78	1220845	204.21	ug/L	99
57) heptane	5.001	57	234561	213.74	ug/L	99
58) 1,2-dichloroethane	4.856	62	407461	199.74	ug/L	100
59) trichloroethene	5.306	95	327813	207.46	ug/L	99
60) ethyl acrylate	5.322	55	543919	202.95	ug/L	99
61) 2-nitropropane	5.864	41	132488	265.09	ug/L	97
62) 2-chloroethyl vinyl ether	5.890	63	1115728	1006.71	ug/L	98
63) methyl methacrylate	5.505	100	116969	205.09	ug/L	97
64) 1,2-dichloropropane	5.508	63	314019	204.80	ug/L	99
65) methylcyclohexane	5.501	83	561988	205.97	ug/L	98
66) dibromomethane	5.578	93	198093	206.55	ug/L	98
67) bromodichloromethane	5.697	83	449612	216.58	ug/L	97
68) cis-1,3-dichloropropene	6.040	75	525596	211.17	ug/L	98
69) epichlorohydrin	5.951	57	179450	1057.45	ug/L	98
70) 4-methyl-2-pentanone	6.140	58	725359	824.51	ug/L	# 89
71) 3-methyl-1-butanol	6.162	70	332086	4143.15	ug/L	94
74) toluene	6.329	92	822866	204.44	ug/L	98
75) trans-1,3-dichloropropene	6.496	75	492436	212.04	ug/L	93
76) ethyl methacrylate	6.512	69	503649	201.96	ug/L	98
77) 1,1,2-trichloroethane	6.669	83	257948	207.03	ug/L	97
78) 2-hexanone	6.836	58	747832	797.67	ug/L	99
79) tetrachloroethene	6.769	166	391336	203.76	ug/L	97
80) 1,3-dichloropropane	6.820	76	500081	201.58	ug/L	100
81) butyl acetate	6.916	56	290516	203.92	ug/L	99
82) dibromochloromethane	7.013	129	360277	213.13	ug/L	99
83) 1,2-dibromoethane	7.131	107	398919	206.33	ug/L	100
84) n-butyl ether	7.597	57	1410502	205.18	ug/L	99
85) chlorobenzene	7.561	112	931845	208.10	ug/L	100
86) 1,1,1,2-tetrachloroethane	7.629	131	317902	199.96	ug/L	97
87) ethylbenzene	7.635	91	1530546	199.82	ug/L	100
88) m,p-xylene	7.751	106	1201026	405.80	ug/L	98
89) o-xylene	8.110	106	604650	207.19	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200992.D
 Acq On : 9 May 2020 8:25 pm
 Operator : PrashanS
 Sample : IC8665-200
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 11 09:19:30 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) butyl acrylate	8.020	55	794265	215.54	ug/L	99
91) n-amyl acetate	8.226	70	297682	207.99	ug/L	95
92) styrene	8.126	104	1013304	203.62	ug/L	99
93) bromoform	8.309	173	270292	221.04	ug/L	95
94) isopropylbenzene	8.447	105	1588402	208.17	ug/L	100
95) cis-1,4-dichloro-2-butene	8.498	88	168673	242.29	ug/L	94
98) bromobenzene	8.771	156	400867	204.85	ug/L	94
99) 1,1,2,2-tetrachloroethane	8.729	83	469153	214.25	ug/L	94
100) trans-1,4-dichloro-2-b...	8.771	53	138144	217.61	ug/L	87
101) 1,2,3-trichloropropane	8.797	110	140918	202.33	ug/L	97
102) n-propylbenzene	8.845	91	1774529	208.25	ug/L	100
103) 2-chlorotoluene	8.944	126	372647	211.38	ug/L	98
104) 4-chlorotoluene	9.060	126	365016	205.88	ug/L	93
105) 1,3,5-trimethylbenzene	9.015	105	1271150	209.22	ug/L	99
106) tert-butylbenzene	9.326	119	1136298	214.67	ug/L	100
107) 1,2,4-trimethylbenzene	9.384	105	1271990	207.75	ug/L	99
108) sec-butylbenzene	9.545	105	1611386	212.75	ug/L	99
109) 1,3-dichlorobenzene	9.673	146	747426	209.65	ug/L	97
110) p-isopropyltoluene	9.689	119	1348010	208.02	ug/L	100
111) 1,4-dichlorobenzene	9.769	146	745228	212.41	ug/L	98
112) 1,2-dichlorobenzene	10.129	146	691233	208.16	ug/L	99
113) n-butylbenzene	10.090	92	678006	219.32	ug/L	97
114) 1,2-dibromo-3-chloropr...	10.899	157	139397	230.13	ug/L	94
115) 1,3,5-trichlorobenzene	11.088	180	548338	222.51	ug/L	98
116) 1,2,4-trichlorobenzene	11.723	180	465178	229.61	ug/L	98
117) hexachlorobutadiene	11.861	225	197610	220.06	ug/L	97
118) naphthalene	11.993	128	1356049	219.09	ug/L	99
119) 1,2,3-trichlorobenzene	12.214	180	397605	229.93	ug/L	99
120) hexachloroethane	10.398	119	241925	230.46	ug/L	97
121) benzyl chloride	9.878	91	885800	230.00	ug/L	100
122) 2-ethylhexyl acrylate	11.887	70	57802	49.63	ug/L	96
123) 2-methylnaphthalene	13.148	142	305501	122.59	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
Data File : 1A200992.D
Acq On : 9 May 2020 8:25 pm
Operator : PrashanS
Sample : IC8665-200
Misc : MS42950,V1A8665,w,,,1
ALS Vial : 11 Sample Multiplier: 1

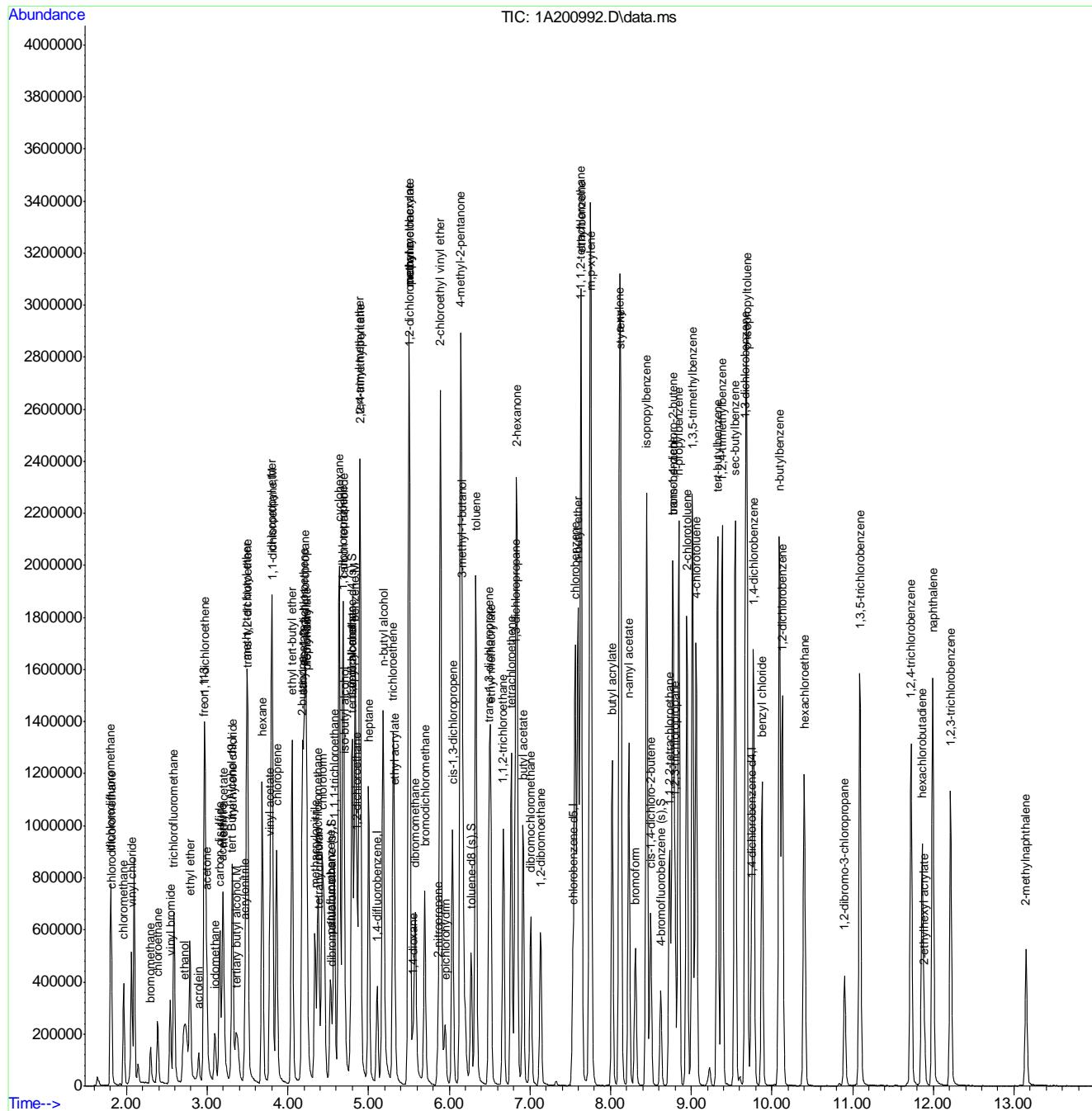
Quant Time: May 11 09:19:30 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

Last Update : Mon May 11 09:08:07 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200995.D
 Acq On : 9 May 2020 9:39 pm
 Operator : PrashanS
 Sample : ICV8665-50
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 11 14:59:52 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:40:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.294	65	133980	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	200357	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	290617	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	278462	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	138801	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	84161	50.84	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	101.68%	
52) 1,2-dichloroethane-d4 (s)	4.805	65	92985	48.74	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	97.48%	
73) toluene-d8 (s)	6.272	98	333237	48.87	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	97.74%	
97) 4-bromofluorobenzene (s)	8.620	95	125866	50.07	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.14%	
Target Compounds						
					Qvalue	
2) 1,4-dioxane	5.546	88	43813	1271.00	ug/L	99
3) ethanol	2.697	45	168558	5024.42	ug/L	97
4) tertiary butyl alcohol	3.348	59	89588	241.03	ug/L	94
7) dichlorodifluoromethane	1.805	85	89093	43.30	ug/L	99
8) chloromethane	1.968	50	74186	46.80	ug/L	98
9) vinyl chloride	2.065	62	87658	47.91	ug/L	97
10) bromomethane	2.328	94	31523	64.41	ug/L	96
11) chloroethane	2.411	64	42931	42.63	ug/L	97
12) vinyl bromide	2.556	106	53909	55.86	ug/L	96
13) trichlorofluoromethane	2.601	101	114624	49.27	ug/L	99
14) ethyl ether	2.793	74	42552	51.41	ug/L	100
15) acrolein	2.899	56	23579	55.61	ug/L	97
16) freon 113	2.970	151	55588	51.68	ug/L	93
17) 1,1-dichloroethene	2.979	96	60196	46.12	ug/L	97
18) acetone	2.992	58	39757	193.98	ug/L	92
19) acetonitrile	3.191	40	89831	586.56	ug/L	96
20) iodomethane	3.101	142	38919	54.69	ug/L	99
21) iso-butyl alcohol	4.680	43	67018	549.20	ug/L	96
22) carbon disulfide	3.162	76	203300	57.78	ug/L	99
23) methylene chloride	3.316	84	74868	49.24	ug/L	99
24) methyl acetate	3.204	74	19712	53.43	ug/L	99
25) methyl tert butyl ether	3.493	73	473083	99.54	ug/L	99
26) trans-1,2-dichloroethene	3.509	96	74287	49.17	ug/L	99
27) hexane	3.688	57	108041	44.92	ug/L	98
28) di-isopropyl ether	3.804	45	239955	47.29	ug/L	96
29) ethyl tert-butyl ether	4.054	59	239578	46.25	ug/L	99
30) 2-butanone	4.179	72	61260	213.32	ug/L	94
31) 1,1-dichloroethane	3.810	63	138745	51.85	ug/L	98
32) chloroprene	3.865	53	122319	54.12	ug/L	98
33) acrylonitrile	3.470	53	43875	55.94	ug/L	95
34) vinyl acetate	3.781	86	18480	48.64	ug/L #	88
35) ethyl acetate	4.183	45	19568	54.94	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200995.D
 Acq On : 9 May 2020 9:39 pm
 Operator : PrashanS
 Sample : ICV8665-50
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 11 14:59:52 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:40:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) 2,2-dichloropropane	4.218	77	108960	47.71	ug/L	99
37) cis-1,2-dichloroethene	4.205	96	84574	48.63	ug/L	98
38) propionitrile	4.227	54	181443	527.64	ug/L	97
39) methyl acrylate	4.231	85	17891	52.57	ug/L	97
40) bromochloromethane	4.375	128	40989	50.14	ug/L	98
41) tetrahydrofuran	4.388	72	16986	49.52	ug/L	96
42) chloroform	4.430	83	141343	46.46	ug/L	98
44) methacrylonitrile	4.337	67	44764	51.52	ug/L	92
45) 1,1,1-trichloroethane	4.577	97	126052	50.55	ug/L	96
46) cyclohexane	4.638	84	115401	50.31	ug/L	95
47) 1,1-dichloropropene	4.683	75	108378	50.20	ug/L	99
48) carbon tetrachloride	4.690	117	111709	51.87	ug/L	97
49) isopropyl acetate	4.799	87	23462	49.38	ug/L	#
50) tert amyl alcohol	4.776	55	32355	264.37	ug/L	98
53) tert-amyl methyl ether	4.892	73	230055	45.70	ug/L	98
54) 2,2,4-trimethylpentane	4.895	57	235266	47.60	ug/L	99
55) n-butyl alcohol	5.161	56	233940	2797.79	ug/L	100
56) benzene	4.837	78	314321	49.25	ug/L	100
57) heptane	5.004	57	55766	48.03	ug/L	96
58) 1,2-dichloroethane	4.856	62	108304	47.47	ug/L	99
59) trichloroethene	5.306	95	83122	50.27	ug/L	98
60) ethyl acrylate	5.319	55	139172	50.10	ug/L	100
61) 2-nitropropane	5.864	41	36132	60.69	ug/L	97
62) 2-chloroethyl vinyl ether	5.890	63	294675	270.34	ug/L	99
63) methyl methacrylate	5.501	100	31027	54.70	ug/L	97
64) 1,2-dichloropropane	5.511	63	80598	51.03	ug/L	98
65) methylcyclohexane	5.501	83	140461	49.78	ug/L	98
66) dibromomethane	5.582	93	49523	50.30	ug/L	97
67) bromodichloromethane	5.697	83	107915	48.45	ug/L	97
68) cis-1,3-dichloropropene	6.041	75	129304	52.41	ug/L	99
69) epichlorohydrin	5.947	57	44550	262.95	ug/L	87
70) 4-methyl-2-pentanone	6.140	58	189448	210.83	ug/L	99
71) 3-methyl-1-butanol	6.153	70	91030	1173.06	ug/L	95
74) toluene	6.329	92	207444	48.39	ug/L	99
75) trans-1,3-dichloropropene	6.496	75	124186	54.06	ug/L	93
76) ethyl methacrylate	6.512	69	129147	51.69	ug/L	99
77) 1,1,2-trichloroethane	6.669	83	64988	49.15	ug/L	99
78) 2-hexanone	6.833	58	197272	205.10	ug/L	99
79) tetrachloroethene	6.769	166	101510	50.19	ug/L	97
80) 1,3-dichloropropane	6.820	76	129248	49.99	ug/L	99
81) butyl acetate	6.913	56	74332	50.11	ug/L	96
82) dibromochloromethane	7.010	129	92566	54.95	ug/L	99
83) 1,2-dibromoethane	7.132	107	101022	50.16	ug/L	96
84) n-butyl ether	7.594	57	354608	49.47	ug/L	100
85) chlorobenzene	7.562	112	234424	49.56	ug/L	97
86) 1,1,1,2-tetrachloroethane	7.629	131	83422	50.79	ug/L	99
87) ethylbenzene	7.635	91	399143	49.54	ug/L	100
88) m,p-xylene	7.751	106	314272	99.77	ug/L	100
89) o-xylene	8.110	106	156151	49.34	ug/L	95
90) butyl acrylate	8.017	55	191352	52.01	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200995.D
 Acq On : 9 May 2020 9:39 pm
 Operator : PrashanS
 Sample : ICV8665-50
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 11 14:59:52 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:40:07 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) n-amyl acetate	8.223	70	72834	51.30	ug/L	99
92) styrene	8.126	104	267253	51.44	ug/L	99
93) bromoform	8.303	173	69485	57.59	ug/L	98
94) isopropylbenzene	8.447	105	403330	50.02	ug/L	99
95) cis-1,4-dichloro-2-butene	8.499	88	40488	58.12	ug/L	98
98) bromobenzene	8.771	156	105319	51.24	ug/L	97
99) 1,1,2,2-tetrachloroethane	8.730	83	116015	50.13	ug/L	98
100) trans-1,4-dichloro-2-b...	8.768	53	34957	55.41	ug/L	95
101) 1,2,3-trichloropropane	8.791	110	37049	50.48	ug/L	98
102) n-propylbenzene	8.845	91	462658	49.63	ug/L	100
103) 2-chlorotoluene	8.945	126	94917	48.76	ug/L	96
104) 4-chlorotoluene	9.060	126	96126	49.93	ug/L	96
105) 1,3,5-trimethylbenzene	9.012	105	325443	49.57	ug/L	98
106) tert-butylbenzene	9.323	119	292368	50.99	ug/L	99
107) 1,2,4-trimethylbenzene	9.381	105	330356	50.94	ug/L	98
108) sec-butylbenzene	9.545	105	406686	50.51	ug/L	99
109) 1,3-dichlorobenzene	9.673	146	189578	50.42	ug/L	96
110) p-isopropyltoluene	9.689	119	349865	50.91	ug/L	99
111) 1,4-dichlorobenzene	9.769	146	185748	49.71	ug/L	98
112) 1,2-dichlorobenzene	10.129	146	173569	49.86	ug/L	99
113) n-butylbenzene	10.093	92	163449	51.64	ug/L	97
114) 1,2-dibromo-3-chloropr...	10.899	157	31654	51.14	ug/L	92
115) 1,3,5-trichlorobenzene	11.088	180	131897	51.36	ug/L	97
116) 1,2,4-trichlorobenzene	11.723	180	106606	51.53	ug/L	97
117) hexachlorobutadiene	11.861	225	47500	49.95	ug/L	99
118) naphthalene	11.993	128	329908	52.41	ug/L	99
119) 1,2,3-trichlorobenzene	12.214	180	93694	52.04	ug/L	99
120) hexachloroethane	10.401	119	56468	53.43	ug/L	94
121) benzyl chloride	9.875	91	160131	42.01	ug/L	99
122) 2-ethylhexyl acrylate	11.887	70	13373	10.00	ug/L	99
123) 2-methylnaphthalene	13.151	142	68334	26.97	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
Data File : 1A200995.D
Acq On : 9 May 2020 9:39 pm
Operator : Prashans
Sample : ICV8665-50
Misc : MS42950,V1A8665,w,,,1
ALS Vial : 14 Sample Multiplier: 1

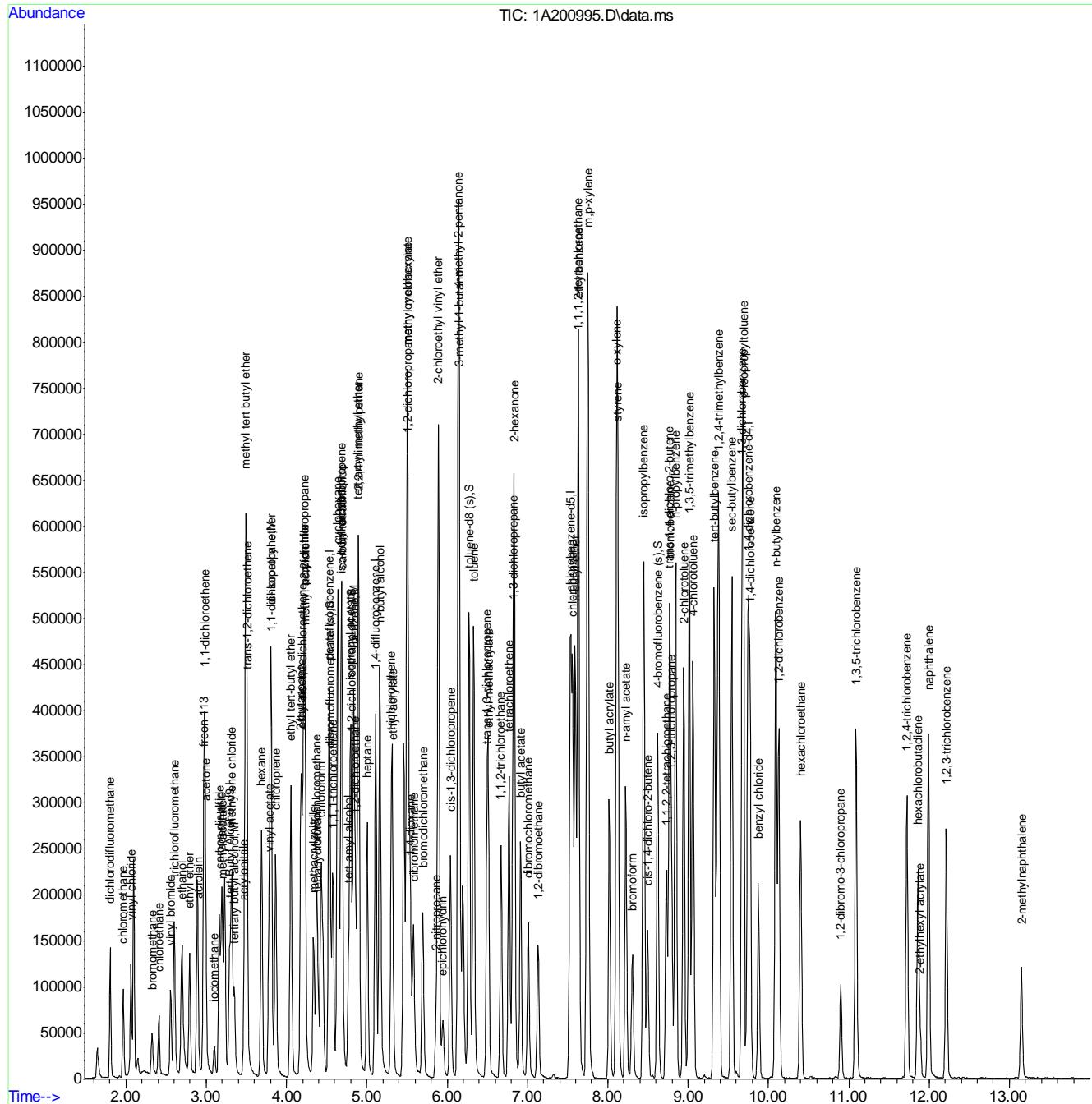
Quant Time: May 11 14:59:52 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:40:07 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200996.D
 Acq On : 9 May 2020 10:03 pm
 Operator : PrashanS
 Sample : ICV8665-50
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 11 15:01:46 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:40:07 2020

Response via : Initial Calibration

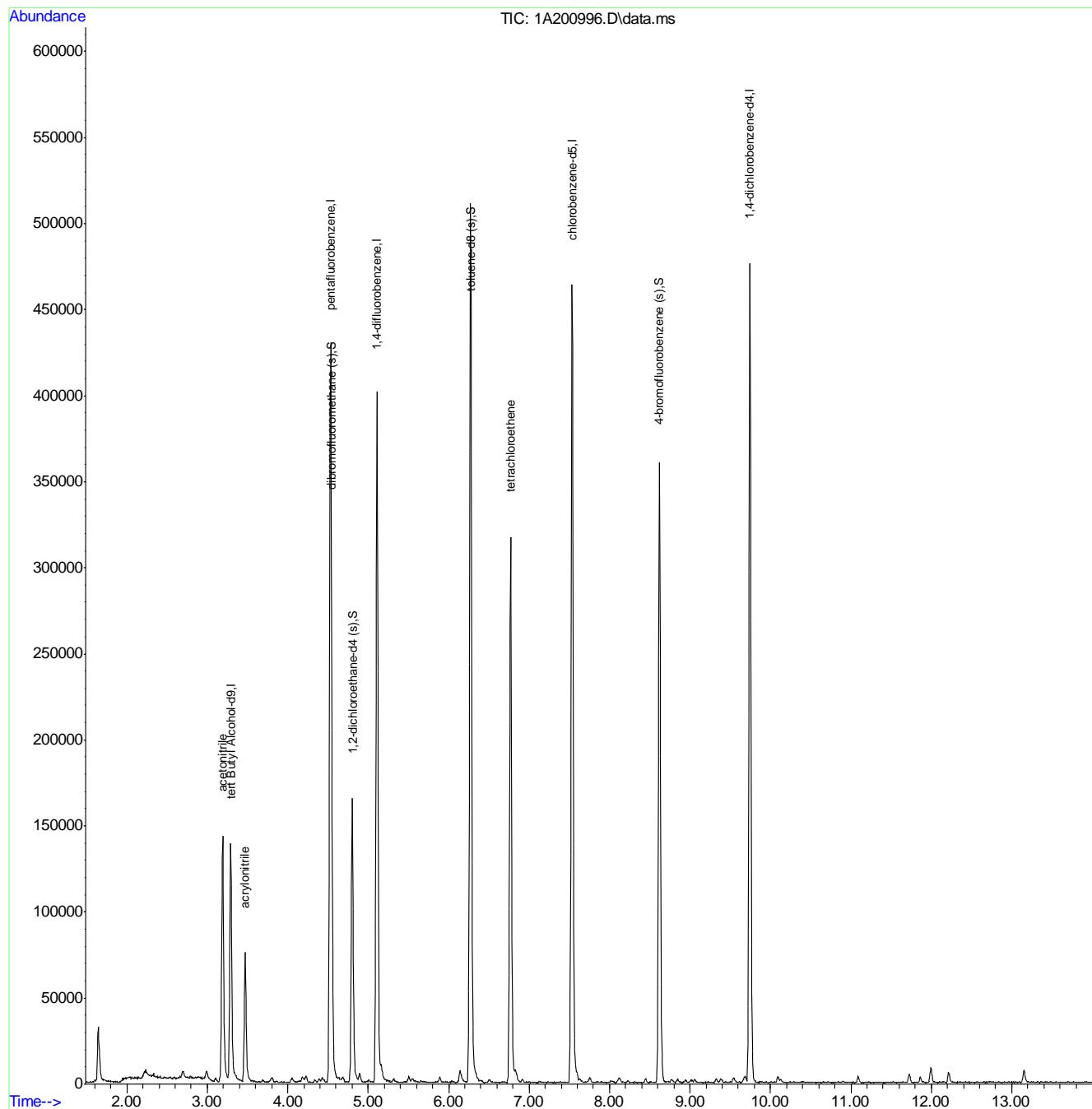
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	136780	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	208875	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	302783	50.00	ug/L	0.00
72) chlorobenzene-d5	7.533	117	274949	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.744	152	136264	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	86925	50.36	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.72%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	98134	49.37	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	98.74%	
73) toluene-d8 (s)	6.271	98	345228	51.28	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	102.56%	
97) 4-bromofluorobenzene (s)	8.617	95	124111	50.29	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.58%	
<hr/>						
Target Compounds						
				Qvalue		
19) acetonitrile	3.191	40	71959	450.70	ug/L	95
33) acrylonitrile	3.470	53	47742	58.39	ug/L	96
79) tetrachloroethene	6.769	166	97683	48.91	ug/L	97
<hr/>						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A200996.D
 Acq On : 9 May 2020 10:03 pm
 Operator : PrashanS
 Sample : ICV8665-50
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 11 15:01:46 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A201000.D
 Acq On : 11 May 2020 1:52 pm
 Operator : PrashanS
 Sample : ICV8665-50
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 11 15:02:45 2020

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M

Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um

QLast Update : Mon May 11 09:40:07 2020

Response via : Initial Calibration

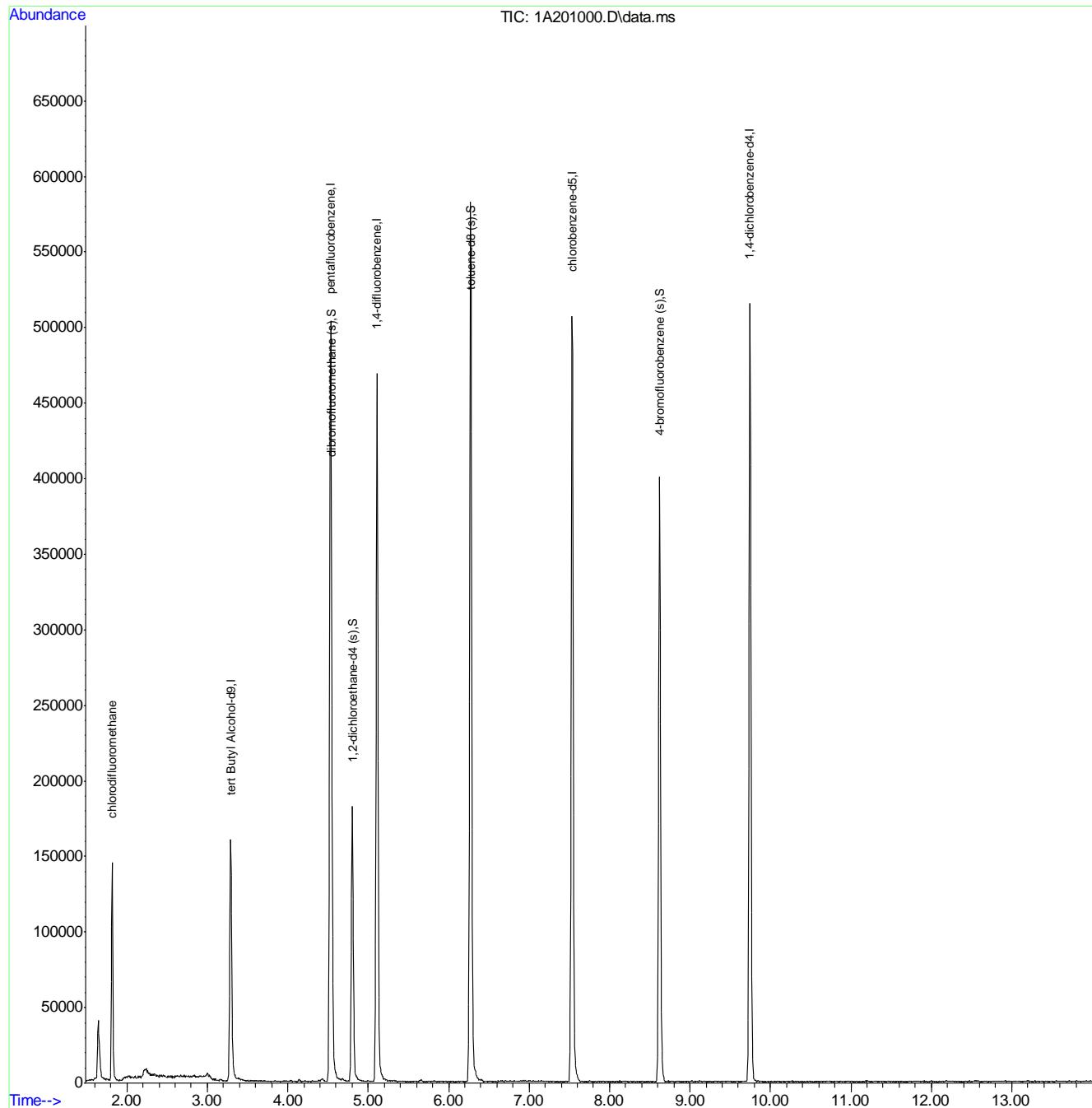
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	165744	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	244700	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	345299	50.00	ug/L	0.00
72) chlorobenzene-d5	7.536	117	304997	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.744	152	150779	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	101404	50.15	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.30%	
52) 1,2-dichloroethane-d4 (s)	4.802	65	112894	49.80	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	99.60%	
73) toluene-d8 (s)	6.272	98	391528	52.43	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	104.86%	
97) 4-bromofluorobenzene (s)	8.620	95	135666	49.68	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	99.36%	
<hr/>						
Target Compounds						
6) chlorodifluoromethane	1.818	51	110780	58.82	ug/L	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A8665\
 Data File : 1A201000.D
 Acq On : 11 May 2020 1:52 pm
 Operator : PrashanS
 Sample : ICV8665-50
 Misc : MS42950,V1A8665,w,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 11 15:02:45 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201126.d
 Acq On : 18 May 2020 6:00 pm
 Operator : brittank
 Sample : cc8665-50 Inst : MSDTEST1A
 Misc : MS43164,V1A8674,w,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 18 18:22:48 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.294	65	134236	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	164837	50.00	ug/L	0.00
51) 1,4-difluorobenzene	5.110	114	253096	50.00	ug/L	0.00
72) chlorobenzene-d5	7.536	117	236709	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.747	152	113805	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.542	113	74067	54.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 108.76%		
52) 1,2-dichloroethane-d4 (s)	4.802	65	83492	50.25	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 100.50%		
73) toluene-d8 (s)	6.272	98	288703	49.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 99.62%		
97) 4-bromofluorobenzene (s)	8.621	95	109477	53.11	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 106.22%		
Target Compounds						
2) 1,4-dioxane	5.546	88	37315	1080.43	ug/L	96
3) ethanol	2.694	45	159671	4750.44	ug/L	97
4) tertiary butyl alcohol	3.348	59	83609	224.52	ug/L	97
7) dichlorodifluoromethane	1.805	85	90573	53.50	ug/L	99
8) chloromethane	1.965	50	76048	58.32	ug/L	99
9) vinyl chloride	2.065	62	84025	55.83	ug/L	99
10) bromomethane	2.325	94	21530	53.47	ug/L	95
11) chloroethane	2.408	64	44932	54.23	ug/L	98
12) vinyl bromide	2.556	106	40673	51.23	ug/L	97
13) trichlorofluoromethane	2.601	101	101726	53.15	ug/L	97
14) ethyl ether	2.790	74	36459	53.54	ug/L	98
15) acrolein	2.896	56	21275	60.99	ug/L	94
16) freon 113	2.973	151	42237	47.73	ug/L	94
17) 1,1-dichloroethene	2.979	96	53974	50.27	ug/L	99
18) acetone	2.989	58	36830	218.42	ug/L	89
19) acetonitrile	3.191	40	74688	592.77	ug/L	99
20) iodomethane	3.101	142	29933	51.12	ug/L	97
21) iso-butyl alcohol	4.680	43	61446	612.04	ug/L	94
22) carbon disulfide	3.162	76	138241	47.75	ug/L	98
23) methylene chloride	3.319	84	67032	53.59	ug/L	99
24) methyl acetate	3.204	74	17497	57.64	ug/L	91
25) methyl tert butyl ether	3.493	73	211218	54.02	ug/L	98
26) trans-1,2-dichloroethene	3.509	96	62309	50.13	ug/L	95
27) hexane	3.692	57	98562	49.81	ug/L	98
28) di-isopropyl ether	3.804	45	228822	54.81	ug/L	97
29) ethyl tert-butyl ether	4.054	59	230381	54.06	ug/L	99
30) 2-butanone	4.176	72	51157	216.53	ug/L	93
31) 1,1-dichloroethane	3.814	63	120077	54.54	ug/L	97
32) chloroprene	3.865	53	97924	52.66	ug/L	99
33) acrylonitrile	3.473	53	38099	59.04	ug/L	97
34) vinyl acetate	3.782	86	18406	58.89	ug/L #	88
35) ethyl acetate	4.186	45	16086	54.89	ug/L #	71
36) 2,2-dichloropropane	4.218	77	105342	56.07	ug/L	95
37) cis-1,2-dichloroethene	4.205	96	72544	50.70	ug/L	96
38) propionitrile	4.228	54	163668	578.51	ug/L	95
39) methyl acrylate	4.231	85	15699	56.07	ug/L	98
40) bromochloromethane	4.375	128	34723	51.63	ug/L	91
41) tetrahydrofuran	4.391	72	15546	55.09	ug/L	84
42) chloroform	4.430	83	120370	48.09	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201126.d
 Acq On : 18 May 2020 6:00 pm
 Operator : brittank
 Sample : cc8665-50 Inst : MSDTEST1A
 Misc : MS43164,V1A8674,w,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 18 18:22:48 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
44) methacrylonitrile	4.340	67	39923	55.85	ug/L	95
45) 1,1,1-trichloroethane	4.577	97	104882	51.12	ug/L	98
46) cyclohexane	4.638	84	96530	51.16	ug/L	95
47) 1,1-dichloropropene	4.683	75	87522	49.28	ug/L	96
48) carbon tetrachloride	4.693	117	88056	49.70	ug/L	98
49) isopropyl acetate	4.796	87	21462	54.90	ug/L	#
50) tert amyl alcohol	4.773	55	26497	263.16	ug/L	#
53) tert-amyl methyl ether	4.895	73	220826	50.37	ug/L	98
54) 2,2,4-trimethylpentane	4.898	57	204453	47.49	ug/L	97
55) n-butyl alcohol	5.161	56	224036	3076.55	ug/L	99
56) benzene	4.837	78	265015	47.68	ug/L	99
57) heptane	5.004	57	48353	47.82	ug/L	97
58) 1,2-dichloroethane	4.860	62	93873	47.24	ug/L	98
59) trichloroethene	5.309	95	67898	47.15	ug/L	98
60) ethyl acrylate	5.322	55	127475	52.70	ug/L	98
61) 2-nitropropane	5.861	41	30960	59.71	ug/L	89
62) 2-chloroethyl vinyl ether	5.890	63	238802	251.56	ug/L	97
63) methyl methacrylate	5.505	100	25470	51.56	ug/L	#
64) 1,2-dichloropropane	5.511	63	70876	51.53	ug/L	98
65) methylcyclohexane	5.501	83	110715	45.05	ug/L	93
66) dibromomethane	5.582	93	44228	51.59	ug/L	97
67) bromodichloromethane	5.697	83	98320	50.69	ug/L	96
68) cis-1,3-dichloropropene	6.041	75	117615	54.74	ug/L	98
69) epichlorohydrin	5.948	57	40770	276.31	ug/L	93
70) 4-methyl-2-pentanone	6.140	58	167524	214.07	ug/L	96
71) 3-methyl-1-butanol	6.156	70	81901	1211.88	ug/L	99
74) toluene	6.329	92	169018	46.38	ug/L	99
75) trans-1,3-dichloropropene	6.499	75	110156	56.41	ug/L	99
76) ethyl methacrylate	6.512	69	112664	53.05	ug/L	99
77) 1,1,2-trichloroethane	6.673	83	55583	49.45	ug/L	96
78) 2-hexanone	6.833	58	174770	213.75	ug/L	95
79) tetrachloroethene	6.772	166	75888	44.14	ug/L	99
80) 1,3-dichloropropane	6.817	76	113420	51.61	ug/L	99
81) butyl acetate	6.913	56	67682	53.68	ug/L	94
82) dibromochloromethane	7.010	129	76148	53.18	ug/L	98
83) 1,2-dibromoethane	7.132	107	85236	49.79	ug/L	99
84) n-butyl ether	7.597	57	308853	50.69	ug/L	99
85) chlorobenzene	7.562	112	187934	46.74	ug/L	100
86) 1,1,1,2-tetrachloroethane	7.629	131	69857	50.04	ug/L	96
87) ethylbenzene	7.635	91	326577	47.68	ug/L	99
88) m,p-xylene	7.751	106	247672	92.49	ug/L	97
89) o-xylene	8.110	106	122292	45.46	ug/L	99
90) butyl acrylate	8.017	55	175525	56.13	ug/L	98
91) n-amyl acetate	8.226	70	64880	53.75	ug/L	97
92) styrene	8.126	104	212704	48.16	ug/L	99
93) bromoform	8.306	173	57452	56.01	ug/L	95
94) isopropylbenzene	8.447	105	317055	46.26	ug/L	99
95) cis-1,4-dichloro-2-butene	8.495	88	35529	60.00	ug/L	97
98) bromobenzene	8.771	156	80976	48.05	ug/L	90
99) 1,1,2,2-tetrachloroethane	8.730	83	99033	52.19	ug/L	93
100) trans-1,4-dichloro-2-b...	8.768	53	30261	58.50	ug/L	88
101) 1,2,3-trichloropropane	8.797	110	30675	50.98	ug/L	97
102) n-propylbenzene	8.845	91	366679	47.97	ug/L	100
103) 2-chlorotoluene	8.945	126	76827	48.13	ug/L	98
104) 4-chlorotoluene	9.063	126	75084	47.56	ug/L	95
105) 1,3,5-trimethylbenzene	9.015	105	258406	48.01	ug/L	97
106) tert-butylbenzene	9.326	119	221436	47.10	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
 Data File : 1a201126.d
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 Operator : brittank
 Sample : cc8665-50 Inst : MSDTEST1A
 Misc : MS43164,V1A8674,w,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
 Quant Results File: M1A8665.RES
 Quant Time: May 18 18:22:48 2020
 Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
 QLast Update : Mon May 11 09:40:07 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
107) 1,2,4-trimethylbenzene	9.381	105	259073	48.72	ug/L	100
108) sec-butylbenzene	9.545	105	317005	48.02	ug/L	99
109) 1,3-dichlorobenzene	9.673	146	146614	47.56	ug/L	96
110) p-isopropyltoluene	9.686	119	269798	47.88	ug/L	97
111) 1,4-dichlorobenzene	9.769	146	143964	46.99	ug/L	99
112) 1,2-dichlorobenzene	10.126	146	135920	47.62	ug/L	99
113) n-butylbenzene	10.090	92	130810	50.41	ug/L	99
114) 1,2-dibromo-3-chloropr...	10.899	157	27651	54.49	ug/L	95
115) 1,3,5-trichlorobenzene	11.088	180	103319	49.07	ug/L	96
116) 1,2,4-trichlorobenzene	11.724	180	86733	51.14	ug/L	98
117) hexachlorobutadiene	11.862	225	38276	49.09	ug/L	95
118) naphthalene	11.993	128	265143	51.37	ug/L	100
119) 1,2,3-trichlorobenzene	12.211	180	74376	50.38	ug/L	96
120) hexachloroethane	10.398	119	48303	55.74	ug/L	97
121) benzyl chloride	9.875	91	206270	66.00	ug/L	98
122) 2-ethylhexyl acrylate	11.884	70	11098	10.11	ug/L	94
123) 2-methylnaphthalene	13.152	142	54374	26.17	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.14

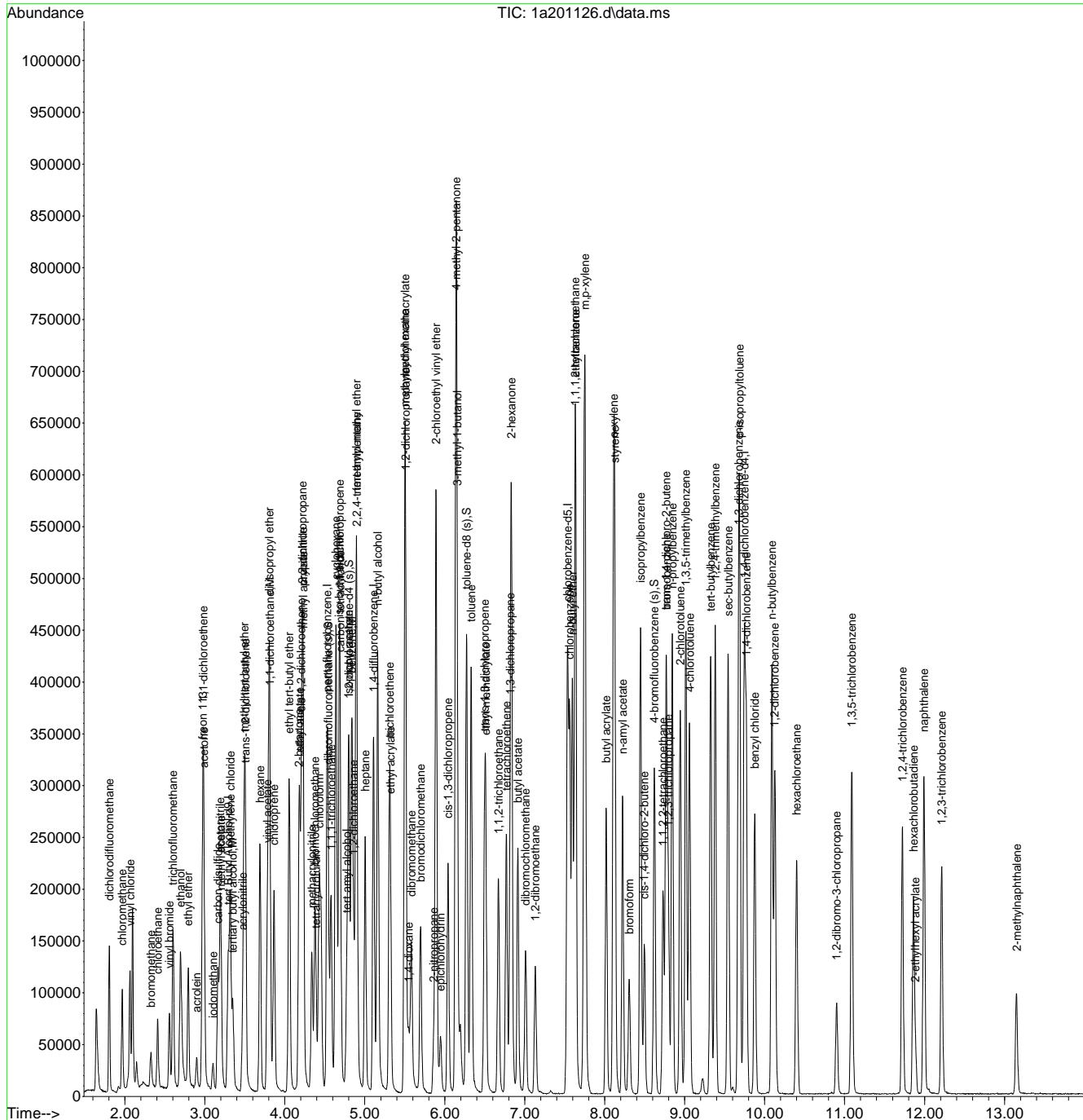
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-20-2020\v1a8674\
Data File : 1a201126.d
Acq On : 18 May 2020 6:00 pm
Operator : brittak
Sample : cc8665-50 Inst
Misc : MS43164,V1A8674,w,,,1
ALS Vial : 2 Sample Multiplier: 1

Inst : MSDTEST1A

Quant Method : C:\MSDCHEM\1\METHODS\M1A8665.M
Quant Results File: M1A8665.RES
Quant Time: May 18 18:22:48 2020
Quant Title : SW846 Method V8260C and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon May 11 09:40:07 2020
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents				Lot #				Column			
Standard	ABK: V020-2701-39-38	EC: V020-2701-69-3		Acrolein: V020-2701-57-20	Chlorodifluoromethane: V020-2701-19-2	Method		RX1624/30mx(25mmx1.4um)		v8260C	
Standard Concentrations	100ppm-10,000ppm	100ppm	100ppm	100ppm	100ppm	Init Calib Date				5/9/2020	
Expiration Date	05/24/2020	05/13/2020	06/04/2020	06/04/2020	05/09/2020						
Ext Standard	Ext ABK: V020-2701-62-1	Ext EC: V020-2701-70-1	Ext Acrolein: V020-2701-56-2	Ext PA: V020-2701-28-1							
Standard Concentrations	100ppm-10,000ppm	100ppm	100ppm	100ppm	100ppm-1,000ppm	Analysis Date				5/9/2020	
Expiration Date	06/05/2020	05/13/2020	06/01/2020	06/01/2020	05/16/2020	Sequence loaded by					Prashant B. Shukla
Internal Surrogate	V020-2701-55			EXT Chlorodifluoromethane V020-2701-73		Data processed by					Bridget Kelly
Internal Surrogate Concentration	50/500ppm		100ppm			Batch ID				V1A8665	
Expiration Date	06/01/2020		6/11/2020			Matrix				AQ	
pH Paper wide range Lot# 221419	EXP. 08/01/2022			Initial Calibration Method	M1A8665	Approved By:				KANYAV	
				Approved Date:		Approved Date:				5/13/2020 10:00:05 PM	

Data File	Sample ID	Bot	#	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
1A 200982	BFB		NA		TUNE		5			1	ok	4:10 PM
1A 200983	IC8665-0-2		NA		ICC8260 AQ		5			2	ok	1uL Std A/B/K/EC,Acrolein,Chlorodifluoromethane in 500mL DI H2O
1A 200984	IC8665-0.5		NA		ICC8260 AQ		5			3	ok	1uL Std A/B/K/EC,Acrolein,Chlorodifluoromethane in 200mL DI H2O
1A 200985	IC8665-1		NA		ICC8260 AQ		5			4	ok	1uL Std A/B/K/EC,Acrolein,Chlorodifluoromethane in 100mL DI H2O
1A 200986	IC8665-2		NA		ICC8260 AQ		5			5	ok	2uL Std A/B/K/EC,Acrolein,Chlorodifluoromethane in 100mL DI H2O
1A 200987	IC8665-4		NA		ICC8260 AQ		5			6	ok	4uL Std A/B/K/EC,Acrolein,Chlorodifluoromethane in 100mL DI H2O
1A 200988	IC8665-8		NA		ICC8260 AQ		5			7	ok	8uL Std A/B/K/EC,Acrolein,Chlorodifluoromethane in 100mL DI H2O
1A 200989	IC8665-20		NA		ICC8260 AQ		5			8	ok	20uL Std A/B/K/EC,Acrolein,Chlorodifluoromethane in 100mL DI H2O
1A 200990	ICC8665-50		NA		ICC8260 AQ		5			9	ok	50uL Std A/B/K/EC,Acrolein,Chlorodifluoromethane in 100mL DI H2O
1A 200991	IC8665-100		NA		ICC8260 AQ		5			10	ok	100uL Std A/B/K/EC,Acrolein,Chlorodifluoromethane in 100mL DI H2O
1A 200992	IC8665-200		NA		ICC8260 AQ		5			11	ok	200uL Std A/B/K/EC,Acrolein,Chlorodifluoromethane in 100mL DI H2O

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Rev Date: 12/18/2017

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Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
1A	200993	IB	NA			5			12	OK	
1A	200994	IB	NA			5			13	OK	
1A	200995	ICV8665-50	NA		ICV8260 AQ	5			14	OK	50uL Ext.A/B/K/EC,Acrolein in 100mL DI H2O
1A	200996	ICV8665-50	NA		ICV8260 AQ	5			15	OK	50uL Ext.PA in 100mL DI H2O
1A	200997	IB	NA			5			16	OK	
1A	200998	IB	NA			5			17	OK	
1A	200999	BFB2	NA			5			18	OK	
1A	201000	ICV8665-50	NA			5			19	OK	50 uL EXT Chlorodifluoromethane / 100 mL

GCMS Volatile Run Log

Standard / Reagents				Lot #							
Standard	ABK: V020-2701-39-27	EC: V020-2701-74-9		Acrolein: V020-2701-57-20		Method		RX1624(30mx0.25mmx1.4um)		V8260C	
Standard Concentrations	100ppm-10,000ppm	100ppm		100ppm		Init Calib Date				5/9/2020	
Expiration Date	05/24/2020	05/19/2020		06/04/2020							
Internal Surrogate	V020-2701-55					Analysis Date		5/18/2020			
Internal Surrogate Concentration	50/500ppm					Sequence loaded by		Brittany Klimmek			
Expiration Date	6/1/2020					Data processed by		Janellec			
pH Paper wide range Lot# 221419	EXP. 08/01/2022					Batch ID		V1A8674			
						Matrix		AQ			
						Approved By:		KANYAV			
						Approved Date:		5/21/2020 2:03:47 PM			

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
1A 201125	IB	NA				5			1	OK	
1A 201126	BFBICC8665-50	NA				5			2	OK/OK	50uL ABK, EC, Acrolein/100mL DI H2O. 5/18/2020; 6:00PM. Ave 8.620±8.622.
1A 201127	BS	NA				5			3	OK	50uL ABK, EC, Acrolein/100mL DI H2O.
1A 201128	IB	NA				5			4	OK	
1A 201129	MB	NA				5			5	OK	
1A 201130	JD7277-13	7	NA	MS43210	V8260SL	5			1	6	OK
1A 201131	JD7277-13MS	3	NA	MS43210	V8260SL	5			1	7	OK 20uL ABL, EC, Acrolein/40mL sample.
1A 201132	JD7277-13MSD	4	NA	MS43210	V8260SL	5			1	8	OK 20uL ABL, EC, Acrolein/40mL sample.
1A 201133	JD7205-6	1	20x	MS43180	V8260BTXMT	2.5/50			1	9	OK +1A201124.
1A 201134	JD7277-2	3	NA	MS43210	V8260SL	5			1	10	OK
1A 201135	JD7277-16	1	NA	MS43210	V8260SL	5			1	11	OK

OR048-01
Rev Date: 12/18/2017

Page 1 of 2

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	#	ALS Status	Comments
1A 201136	JD7277-19	2	NA	MS43210	V8260SL	5		1	12	OK	
1A 201137	JD7277-1	2	NA	MS43210	V8260SL	5		1	13	OK	
1A 201138	JD7277-3	2	NA	MS43210	V8260SL	5		1	14	OK	
1A 201139	JD7277-4	1	NA	MS43210	V8260SL	5		1	15	OK	
1A 201140	JD7277-5	1	NA	MS43210	V8260SL	5		1	16	OK	
1A 201141	JD7277-6	1	NA	MS43210	V8260SL	5		1	17	OK	
1A 201142	JD7277-7	1	NA	MS43210	V8260SL	5		1	18	OK	
1A 201143	JD7277-8	2	NA	MS43210	V8260SL	5		1	19	OK	
1A 201144	JD7277-9	1	NA	MS43210	V8260SL	5		1	20	OK	
1A 201145	JD7277-10	1	NA	MS43210	V8260SL	5		1	21	OK	
1A 201146	JD7277-11	1	NA	MS43210	V8260SL	5		1	22	OK	
1A 201147	JD7277-12	1	NA	MS43210	V8260SL	5		1	23	OK	
1A 201148	JD7277-14	2	NA	MS43210	V8260SL	5		1	24	OK	
1A 201149	JD7277-15	1	NA	MS43210	V8260SL	5		1	25	OK	
1A 201150	JD7277-17	2	NA	MS43210	V8260SL	5		1	26	OK	
1A 201151	JD7277-18	2	NA	MS43210	V8260SL	5		1	27	OK	4:31am



6W
WF₃
WTm

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

Page _____ of _____

FED-EX Tracking # 121560305331 **Bottle Order Control #**

Client / Reporting Information		Project Information								Requested Analysis								Matrix Codes					
Company Name: AECOM		Project Name: UTAS SER Plants 1/2 Facility																					
Street Address 4320 W Winfield Rd		Street Winnipeg IL 60555		Billing Information (if different from Report to)																			
City Winona	State IL	City Rockford	State IL	Company Name																			
Project Contact Peter.Hellat@aecom.com		E-mail 608607752		Project #								Street Address											
Phone # 608607752				Client Purchase Order #								City Rockford		State IL		Zip 60101							
Sampler(s) Name(s) A. Hellat/A. Sulcousky		Phone #		Project Manager Peter Hellat		Attention:																	
SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection				Matrix	# of bottles	Number of preserved Bottles								<i>VOC's</i>	LAB USE ONLY					
			Date 5-12-20	Time 1005	Sampled by AS	Grab (G) Comp (C) G			HCl	NaOH	HNO ₃	H ₂ SO ₄	NONE	D Water	MECH	ENCORE							
1	HSSER-SMW08-051220		1005	AS G	GW	3	X									X							
2	HSSER-FBL002-051220		1010	AS G	GW	3	X									X							
3	HSSER-SMW02-051220		1025	AH G	GW	3	X									X							
4	HSSER-MW203-051220		1105	AH G	GW	3	X									X							
5	HSSER-GM201-051220		1125	AS G	GW	3	X									X							
6	HSSER-MW07FGA-051220		1150	AH G	GW	3	X									X							
7	HSSER-SMW01-051220		1230	AS G	GW	3	X									X							
8	HSSER-SMW19-051220		1245	AH G	GW	3	X									X							
9	HSSER-GM204-051220		1400	AS G	GW	3	X									X							
10	HSSER-SMW21-051220		1500	AS G	GW	3	X									X							
11	HSSER-SMW20-051320		5-13-20 0940	AS G	GW	3	X									X							
12	HSSER-GM208-051320		5-13-20 1035	AS G	GW	3	X									X							
Turn Around Time (Business Days)				Deliverable								Comments / Special Instructions											
<input checked="" type="checkbox"/> 10 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 3 Business Days <input type="checkbox"/> 2 Business Days <input type="checkbox"/> 1 Business Day <input type="checkbox"/> Other _____				Approved By (SGS PM): / Date: _____				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NJ Reduced (Level 3) <input type="checkbox"/> Full Tier I (Level 4) <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NJ DKQP				<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> MA MCP Criteria _____ <input type="checkbox"/> CT RCP Criteria _____ <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format _____				DOD-QSMS				<i># List 13 VOC's</i>			
<input type="checkbox"/> All data available via Lablink _____				Approval needed for 1-3 Business Day TAT				Commercial "A" = Results only; Commercial "B" = Results + QC Summary Commercial "C" = Results + QC Summary + Partial Raw data															
Sample Custody must be documented below each time samples change possession, including courier delivery.																http://www.sgs.com/en/terms-and-condition							
Relinquished by: <i>John Hellat</i>		Date / Time: 5-14-20 1300		Received By: 1 Feder 1215 60305331				Relinquished By: 2 FSD				Date / Time: 5-15-20				Received By: 2 cek							
Relinquished by: 3		Date / Time:		Received By: 3				Relinquished By: 4				Date / Time:				Received By: 4							
Relinquished by: 5		Date / Time:		Received By: 5				Custody Seal #				<input type="checkbox"/> Intact	Preserved where applicable				<input type="checkbox"/> On Ics	Cooler Temp. °C					
												<input type="checkbox"/> Not intact	<input type="checkbox"/> Absent	<input type="checkbox"/> Therm. ID:			16.6°C						



CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

Page of

Client / Reporting Information		Project Information										Requested Analysis						Matrix Codes				
Company Name: AECOM		Project Name: UTAS SER Plants 1/2 Facility																				
Street Address: 1320 Wintfield Rd		Street:		Billing Information (if different from Report to)																		
City: Warrenville IL	State: IL	City: Rockford IL	State: IL	Company Name																		
Project Contact: Peter.Hellat@aecom.com	E-mail: (00627752)	Project #:	Street Address:																			
Phone #:		Client Purchase Order #:		City:	State:	Zip:																
Sampler(s) Name(s): T. Hellat/A. Suklauskas		Phone #:	Project Manager: Peter.Hellat	Attention:																		
SGS Sample #		Field ID / Point of Collection		Collection			# of bottles	Number of preserved Bottles								LAB USE ONLY						
				MEOH/DI Vial #	Date	Time		Sampled by	Grab (G) Comp (C)	Matrix	HCl	NaOH	HNO ₃	H ₂ SO ₄	None							D Water
13	HSER-GM202-051320	5-13-20	1155	AS	L	GW	3	X								X						
14	HSER-MS01-051320		1155	AS	L	GW	3	X								X						
15	HSER-MS01-051320		1155	AS	L	GW	3	X								X						
16	HSER-PMU01-051320		1325	AS	L	GW	3	X								X						
17	HSER-PMU02-051320		1435	AS	L	GW	3	X								X						
18	HSER-FBLK01-051320		1450	AS	L	GW	3	X								X						
19	HSER-Daq01-051320		0000	AS	L	GW	3	X								X						
20	HSER-SM604-051420	7b	5-14-20	0955	AS	L	GW	3	X							X						
21	HSER-TBLK01-051220		5-12-20	—	—	—	6	GW	2	X						X						
Turn Around Time (Business Days)				Deliverable										Comments / Special Instructions								
<input checked="" type="checkbox"/> 10 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 3 Business Days <input type="checkbox"/> 2 Business Days <input type="checkbox"/> 1 Business Day <input type="checkbox"/> Other All data available via Lablink				Approved By (SGS PM): Date: <hr/> Approval needed for 1-3 Business Day TAT				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NJ Reduced (Level 3) <input type="checkbox"/> Full Tier 1 (Level 4) <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NJ DKQP				<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> MA MCP Criteria <input type="checkbox"/> CT RCP Criteria <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format				<input type="checkbox"/> DOD-QSM5 # List 13 VOC's ** 10.1 VOC vials on 5/15/20						
Commercial "A" = Results only; Commercial "B" = Results + QC Summary Commercial "C" = Results + QC Summary + Partial Raw data														http://www.sgs.com/en/terms-and-conditions/								
Sample Custody must be documented below each time samples change possession, including courier delivery.																						
Relinquished by: 1 [Signature]	Date / Time: 5-14-20 1300	Received By: 1 Peter 1215600305331	Relinquished By: 2 [Signature]	Date / Time: 5-15-20 10:00	Received By: 2 [Signature]																	
Relinquished by: 3	Date / Time: —	Received By: 3	Relinquished By: 4	Date / Time: —	Received By: 4																	
Relinquished by: 5	Date / Time: —	Received By: 5	Custody Seal #	<input type="checkbox"/> Intact	Preserved where applicable				<input type="checkbox"/> Not intact	<input type="checkbox"/> Absent	<input type="checkbox"/> Therm. ID:	<input type="checkbox"/> On Ice	<input type="checkbox"/> Cooler Temp. °C									

SGS Sample Receipt Summary

Job Number: JD7277

Client: AECOM, INC.

Project: ENSRILW: UTAS PLANTS 1/2 FACILITY, ROCK

Date / Time Received: 5/15/2020 10:00:00 AM

Delivery Method:

Airbill #'s:

Cooler Temps (Raw Measured) °C: Cooler 1: (1.6);

Cooler Temps (Corrected) °C: Cooler 1: (1.3);

Cooler Security **Y or N**

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature **Y or N**

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation **Y or N** **N/A**

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Documentation

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

- | | | |
|---|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> |

Test Strip Lot #s:

pH 1-12: 229517

pH 12+: 208717

Other: (Specify)

Comments

Sample Receipt Confirmation

United Technologies Corporation

Job No: JD7277

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60627752

Sample Number	Collected			Matrix				Client Sample ID
	Date	Time	By	Received	TA	Code	Type	
JD7277-1	05/12/20	10:05	AS	05/15/20	14	AQ	Ground Water	HSSER-SMW08-051220
JD7277-2	05/12/20	10:10	AS	05/15/20	14	AQ	Field Blank Water	HSSER-FBLK02-051220
JD7277-3	05/12/20	10:25	AH	05/15/20	14	AQ	Ground Water	HSSER-SMW02-051220
JD7277-4	05/12/20	11:05	AH	05/15/20	14	AQ	Ground Water	HSSER-MW203-051220
JD7277-5	05/12/20	11:25	AS	05/15/20	14	AQ	Ground Water	HSSER-GMZ01-051220
JD7277-6	05/12/20	11:50	AH	05/15/20	14	AQ	Ground Water	HSSER-MW07FGA-051220
JD7277-7	05/12/20	12:30	AS	05/15/20	14	AQ	Ground Water	HSSER-SMW01-051220
JD7277-8	05/12/20	12:45	AH	05/15/20	14	AQ	Ground Water	HSSER-SMW19-051220
JD7277-9	05/12/20	14:00	AS	05/15/20	14	AQ	Ground Water	HSSER-GMZ04-051220
JD7277-10	05/12/20	15:00	AS	05/15/20	14	AQ	Ground Water	HSSER-SMW21-051220
JD7277-11	05/13/20	09:40	AS	05/15/20	14	AQ	Ground Water	HSSER-SMW20-051320
JD7277-12	05/13/20	10:35	AS	05/15/20	14	AQ	Ground Water	HSSER-GMZ03-051320
JD7277-13	05/13/20	11:55	AS	05/15/20	14	AQ	Ground Water	HSSER-GMZ02-051320
JD7277-14	05/13/20	13:25	AS	05/15/20	14	AQ	Ground Water	HSSER-PMW01-051320
JD7277-15	05/13/20	14:35	AS	05/15/20	14	AQ	Ground Water	HSSER-PMW02-051320
JD7277-16	05/13/20	14:50	AS	05/15/20	14	AQ	Field Blank Water	HSSER-FBLK01-051320
JD7277-17	05/13/20	00:00	AS	05/15/20	14	AQ	Ground Water	HSSER-DUP01-051320
JD7277-18	05/14/20	09:55	AS	05/15/20	14	AQ	Ground Water	HSSER-SMW04-051420
JD7277-19	05/14/20	09:55	AS	05/15/20	14	AQ	Trip Blank Water	HSSER-TBLK01-051220
Tests: EXTSTORAGE, V8260SL								
JD7277-13D	05/13/20	11:55	AS	05/15/20	14	AQ	Water Dup/MSD	HSSER-MSD01-051320

Tests are displayed after the samples to which they apply.

Sample Receipt Confirmation

United Technologies Corporation

Job No: JD7277

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Project No: 60627752

Sample Number	Collected		Matrix			Client
	Date	Time By	Received	TA	Code Type	Sample ID
JD7277-13S	05/13/20	11:55 AS	05/15/20	14	AQ	Water Matrix Spike Tests: V8260SL

Tests are displayed after the samples to which they apply.

Job Number: JD7277 Client project: 60627752
PREM CLIENT
 Account: United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL Bottle Order: KR-042220-146

HC Date: 29-MAY-20 Deliv: FULT1 StateCode: IL Manager: Peter Hollatz

Sample Number	Client ID	Site	Receive	Collect	Due	Samp	Product List
			Matx	Date	TAT	Date	
JD7277-1	HSSER-SMW08-051220	GW	15-MAY-20	12-MAY-20 10:05	14	29-MAY-20	AS DISPQ, ENVIRO, EXTSTORAGE, V8260SL
JD7277-2	HSSER-FBLK02-051220	WFB	15-MAY-20	12-MAY-20 10:10	14	29-MAY-20	AS EXTSTORAGE, V8260SL
JD7277-3	HSSER-SMW02-051220	GW	15-MAY-20	12-MAY-20 10:25	14	29-MAY-20	AH EXTSTORAGE, V8260SL
JD7277-4	HSSER-MW203-051220	GW	15-MAY-20	12-MAY-20 11:05	14	29-MAY-20	AH EXTSTORAGE, V8260SL
JD7277-5	HSSER-GMZ01-051220	GW	15-MAY-20	12-MAY-20 11:25	14	29-MAY-20	AS EXTSTORAGE, V8260SL
JD7277-6	HSSER-MW07FGA-051220	GW	15-MAY-20	12-MAY-20 11:50	14	29-MAY-20	AH EXTSTORAGE, V8260SL
JD7277-7	HSSER-SMW01-051220	GW	15-MAY-20	12-MAY-20 12:30	14	29-MAY-20	AS EXTSTORAGE, V8260SL
JD7277-8	HSSER-SMW19-051220	GW	15-MAY-20	12-MAY-20 12:45	14	29-MAY-20	AH EXTSTORAGE, V8260SL
JD7277-9	HSSER-GMZ04-051220	GW	15-MAY-20	12-MAY-20 14:00	14	29-MAY-20	AS EXTSTORAGE, V8260SL
JD7277-10	HSSER-SMW21-051220	GW	15-MAY-20	12-MAY-20 15:00	14	29-MAY-20	AS EXTSTORAGE, V8260SL
JD7277-11	HSSER-SMW20-051320	GW	15-MAY-20	13-MAY-20 09:40	14	29-MAY-20	AS EXTSTORAGE, V8260SL
JD7277-12	HSSER-GMZ03-051320	GW	15-MAY-20	13-MAY-20 10:35	14	29-MAY-20	AS EXTSTORAGE, V8260SL
JD7277-13	HSSER-GMZ02-051320	GW	15-MAY-20	13-MAY-20 11:55	14	29-MAY-20	AS EXTSTORAGE, V8260SL
JD7277-13D	HSSER-MSD01-051320	WDP	15-MAY-20	13-MAY-20 11:55	14	29-MAY-20	AS V8260SL
JD7277-13S	HSSER-MS01-051320	WMS	15-MAY-20	13-MAY-20 11:55	14	29-MAY-20	AS V8260SL
JD7277-14	HSSER-PMW01-051320	GW	15-MAY-20	13-MAY-20 13:25	14	29-MAY-20	AS EXTSTORAGE, V8260SL
JD7277-15	HSSER-PMW02-051320	GW	15-MAY-20	13-MAY-20 14:35	14	29-MAY-20	AS EXTSTORAGE, V8260SL
JD7277-16	HSSER-FBLK01-051320	WFB	15-MAY-20	13-MAY-20 14:50	14	29-MAY-20	AS EXTSTORAGE, V8260SL
JD7277-17	HSSER-DUP01-051320	GW	15-MAY-20	13-MAY-20 00:00	14	29-MAY-20	AS EXTSTORAGE, V8260SL
JD7277-18	HSSER-SMW04-051420	GW	15-MAY-20	14-MAY-20 09:55	14	29-MAY-20	AS EXTSTORAGE, V8260SL
JD7277-19	HSSER-TBLK01-051220	WTB	15-MAY-20	14-MAY-20 09:55	14	29-MAY-20	AS EXTSTORAGE, V8260SL

Job Number: JD7277 Client project: 60627752
PREM CLIENT
 Account: United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL Bottle Order: KR-042220-146

HC Date: 29-MAY-20 Deliv: FULT1 StateCode: IL Manager: Peter Hollatz

Sample Number	Client ID	Receive Site	Collect Matx Date	Due Date/TIME	Samp By TAT	Product List
---------------	-----------	--------------	-------------------	---------------	-------------	--------------

EMAIL Address:
 Peter Hollatz
 AECOM, INC.
 4320 Winfield Road
 Warrenville, IL 60555 (417)882-0967

INVOICE1UD Address:
 Accounts Payable
 AECOM, INC.
 PO BOX 5604
 Glen Allen, VA 23058 (864)234-3000

Peter.Hollatz@AECOM.com USAPImaging@AECOM.com

PO Number: SEE BELOW

EDDS: Project ENSRILWUTC1 EMAIL peter.hollatz@aecom.com

Distribution2 Sample Receipts Project peter.hollatz@aecom.com

Product Code Legend:

EXTSTORAGE \$Quantity Days @ \$Price per Day
 V8260SL Volatile Organics, Special List

Matrix Code Legend:

GW Ground Water
 WDP Water Dup/MSD
 WFB Field Blank Water
 WMS Water Matrix Spike
 WTB Trip Blank Water

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

United Technologies Corporation

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

60627752

SGS Job Number: JD7282

Sampling Dates: 05/12/20 - 05/14/20



Report to:

**AECOM, INC.
4320 Winfield Road
Warrenville, IL 60555
Peter.Hollatz@AECOM.com**

ATTN: Peter Hollatz

Total number of pages in report: 275



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

**Laura Degenhardt
General Manager**

Client Service contact: Kelly Ramos 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

SGS North America Inc. • 2235 Route 130 • Dayton, NJ 08810 • tel: 732-329-0200 • fax: 732-329-3499

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Sample Summary

United Technologies Corporation

Job No: JD7282

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60627752

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
---------------	----------------	---------	----------	------------------	------------------

This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the MDL

JD7282-1	05/12/20	14:00 AH	05/15/20	AQ	Ground Water	HSSER-RAMW08-051220
JD7282-2	05/13/20	10:10 AH	05/15/20	AQ	Ground Water	HSSER-RAMW07-051320
JD7282-3	05/13/20	11:15 AH	05/15/20	AQ	Ground Water	HSSER-RAMW06-051320
JD7282-4	05/13/20	12:20 AH	05/15/20	AQ	Ground Water	HSSER-RAMW05-051320
JD7282-5	05/13/20	13:15 AH	05/15/20	AQ	Ground Water	HSSER-RAMW04-051320
JD7282-6	05/13/20	13:25 AH	05/15/20	AQ	Equipment Blank	HSSER-EBLK02-051320
JD7282-7	05/13/20	14:20 AH	05/15/20	AQ	Ground Water	HSSER-RAMW03-051320
JD7282-8	05/13/20	00:00 AH	05/15/20	AQ	Ground Water	HSSER-DUP02-051320
JD7282-9	05/14/20	09:45 AH	05/15/20	AQ	Ground Water	HSSER-RAMW02-051420
JD7282-9D	05/14/20	09:45 AH	05/15/20	AQ	Water Dup/MSD	HSSER-MSD02-051420
JD7282-9S	05/14/20	09:45 AH	05/15/20	AQ	Water Matrix Spike	HSSER-MS02-051420
JD7282-10	05/14/20	10:10 AH	05/15/20	AQ	Field Blank Water	HSSER-FBLK02-051420

Sample Summary

(continued)

United Technologies Corporation

Job No: JD7282ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60627752

Sample Number	Collected Date	Time By	Matrix Received	Code Type	Client Sample ID
JD7282-11	05/14/20	11:00 AH	05/15/20	AQ	Ground Water
JD7282-12	05/14/20	11:00 AH	05/15/20	AQ	Trip Blank Water

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	United Technologies Corporation	Job No	JD7282
Site:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL	Report Date	5/26/2020 5:11:40 PM

On 05/15/2020, 10 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.6 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD7282 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ	Batch ID: V2V2800
-------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD7301-1MS, JD7301-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for MSD for Tetrachloroethene are outside control limits for sample JD7301-1MSD. Outside control limits due to matrix interference.

Matrix: AQ	Batch ID: VA10060
-------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD7282-9MS, JD7282-9MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD7282
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 05/12/20 thru 05/14/20

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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JD7282-1 HSSER-RAMW08-051220

No hits reported in this sample.

JD7282-2 HSSER-RAMW07-051320

1,1-Dichloroethane	0.0019	0.0010	0.00057	mg/l	SW846 8260C
cis-1,2-Dichloroethene	0.0011	0.0010	0.00051	mg/l	SW846 8260C
Ethylbenzene	0.0110	0.0010	0.00060	mg/l	SW846 8260C
Toluene	0.00060 J	0.0010	0.00053	mg/l	SW846 8260C
1,1,1-Trichloroethane	0.148	0.0010	0.00054	mg/l	SW846 8260C

JD7282-3 HSSER-RAMW06-051320

1,1-Dichloroethane	0.0025	0.0010	0.00057	mg/l	SW846 8260C
1,1-Dichloroethene	0.0036	0.0010	0.00059	mg/l	SW846 8260C
cis-1,2-Dichloroethene	0.0010	0.0010	0.00051	mg/l	SW846 8260C
1,1,1-Trichloroethane	0.674	0.010	0.0054	mg/l	SW846 8260C
Trichloroethene	0.00084 J	0.0010	0.00053	mg/l	SW846 8260C

JD7282-4 HSSER-RAMW05-051320

1,1-Dichloroethane	0.0015	0.0010	0.00057	mg/l	SW846 8260C
cis-1,2-Dichloroethene	0.0014	0.0010	0.00051	mg/l	SW846 8260C
1,1,1-Trichloroethane	0.0651	0.0010	0.00054	mg/l	SW846 8260C

JD7282-5 HSSER-RAMW04-051320

No hits reported in this sample.

JD7282-6 HSSER-EBLK02-051320

No hits reported in this sample.

JD7282-7 HSSER-RAMW03-051320

1,1,1-Trichloroethane	0.00096 J	0.0010	0.00054	mg/l	SW846 8260C
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JD7282-8 HSSER-DUP02-051320

1,1,1-Trichloroethane	0.0010	0.0010	0.00054	mg/l	SW846 8260C
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JD7282-9 HSSER-RAMW02-051420

No hits reported in this sample.

Summary of Hits

Job Number: JD7282
Account: United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Collected: 05/12/20 thru 05/14/20

Lab Sample ID	Client Sample ID	Result/ Analyte	Qual	RL	MDL	Units	Method
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JD7282-10 HSSER-FBLK02-051420

No hits reported in this sample.

JD7282-11 HSSER-RAMW01-051420

Tetrachloroethene	0.0014	0.0010	0.00090	mg/l	SW846 8260C
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JD7282-12 HSSER-TBLK02-051220

No hits reported in this sample.

Sample Results

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Client Sample ID: HSSER-RAMW08-051220**Lab Sample ID:** JD7282-1**Date Sampled:** 05/12/20**Matrix:** AQ - Ground Water**Date Received:** 05/15/20**Method:** SW846 8260C**Percent Solids:** n/a**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A258173.D	1	05/20/20 14:43	ED	n/a	n/a	VA10060
Run #2							

Purge Volume

Run #1 5.0 ml

Run #2

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		80-120%
17060-07-0	1,2-Dichloroethane-D4	92%		81-124%
2037-26-5	Toluene-D8	93%		80-120%
460-00-4	4-Bromofluorobenzene	83%		80-120%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID:	HSSER-RAMW07-051320	Date Sampled:	05/13/20
Lab Sample ID:	JD7282-2	Date Received:	05/15/20
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A258174.D	1	05/20/20 15:12	ED	n/a	n/a	VA10060
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0019	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0011	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	0.0110	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	0.00060	0.0010	0.00053	mg/l	J
71-55-6	1,1,1-Trichloroethane	0.148	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		80-120%
17060-07-0	1,2-Dichloroethane-D4	93%		81-124%
2037-26-5	Toluene-D8	93%		80-120%
460-00-4	4-Bromofluorobenzene	82%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID:	HSSER-RAMW06-051320	Date Sampled:	05/13/20
Lab Sample ID:	JD7282-3	Date Received:	05/15/20
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A258175.D	1	05/20/20 15:40	ED	n/a	n/a	VA10060
Run #2	2V67679.D	10	05/21/20 16:06	RS	n/a	n/a	V2V2800

Purge Volume	
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0025	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	0.0036	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0010	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	0.674 ^a	0.010	0.0054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	0.00084	0.0010	0.00053	mg/l	J
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%	97%	80-120%
17060-07-0	1,2-Dichloroethane-D4	92%	90%	81-124%
2037-26-5	Toluene-D8	92%	99%	80-120%
460-00-4	4-Bromofluorobenzene	82%	96%	80-120%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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Client Sample ID: HSSER-RAMW05-051320**Lab Sample ID:** JD7282-4**Date Sampled:** 05/13/20**Matrix:** AQ - Ground Water**Date Received:** 05/15/20**Method:** SW846 8260C**Percent Solids:** n/a**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V67680.D	1	05/21/20 16:32	RS	n/a	n/a	V2V2800
Run #2							

Purge Volume

Run #1 5.0 ml

Run #2

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	0.0015	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	0.0014	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0651	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	94%		81-124%
2037-26-5	Toluene-D8	90%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID: HSSER-RAMW04-051320**Lab Sample ID:** JD7282-5**Date Sampled:** 05/13/20**Matrix:** AQ - Ground Water**Date Received:** 05/15/20**Method:** SW846 8260C**Percent Solids:** n/a**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A258177.D	1	05/20/20 16:37	ED	n/a	n/a	VA10060
Run #2							

Purge Volume

Run #1 5.0 ml

Run #2

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		81-124%
2037-26-5	Toluene-D8	94%		80-120%
460-00-4	4-Bromofluorobenzene	84%		80-120%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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4**Client Sample ID:** HSSER-EBLK02-051320**Lab Sample ID:** JD7282-6**Date Sampled:** 05/13/20**Matrix:** AQ - Equipment Blank**Date Received:** 05/15/20**Method:** SW846 8260C**Percent Solids:** n/a**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A258178.D	1	05/20/20 17:06	ED	n/a	n/a	VA10060
Run #2							

Purge Volume

Run #1 5.0 ml

Run #2

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	93%		80-120%
460-00-4	4-Bromofluorobenzene	82%		80-120%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID: HSSER-RAMW03-051320**Lab Sample ID:** JD7282-7**Date Sampled:** 05/13/20**Matrix:** AQ - Ground Water**Date Received:** 05/15/20**Method:** SW846 8260C**Percent Solids:** n/a**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A258179.D	1	05/20/20 17:34	ED	n/a	n/a	VA10060
Run #2							

Purge Volume

Run #1 5.0 ml

Run #2

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	0.00096	0.0010	0.00054	mg/l	J
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		81-124%
2037-26-5	Toluene-D8	94%		80-120%
460-00-4	4-Bromofluorobenzene	82%		80-120%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID:	HSSER-DUP02-051320	Date Sampled:	05/13/20
Lab Sample ID:	JD7282-8	Date Received:	05/15/20
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A258180.D	1	05/20/20 18:03	ED	n/a	n/a	VA10060
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0010	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	93%		80-120%
460-00-4	4-Bromofluorobenzene	83%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID:	HSSER-RAMW02-051420	Date Sampled:	05/14/20
Lab Sample ID:	JD7282-9	Date Received:	05/15/20
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A258166.D	1	05/20/20 11:24	ED	n/a	n/a	VA10060
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		80-120%
17060-07-0	1,2-Dichloroethane-D4	92%		81-124%
2037-26-5	Toluene-D8	94%		80-120%
460-00-4	4-Bromofluorobenzene	86%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Report of Analysis

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Client Sample ID:	HSSER-FBLK02-051420	Date Sampled:	05/14/20
Lab Sample ID:	JD7282-10	Date Received:	05/15/20
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A258181.D	1	05/20/20 18:31	ED	n/a	n/a	VA10060
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		81-124%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	84%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	HSSER-RAMW01-051420	Date Sampled:	05/14/20
Lab Sample ID:	JD7282-11	Date Received:	05/15/20
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A258167.D	1	05/20/20 11:53	ED	n/a	n/a	VA10060
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	0.0014	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		80-120%
17060-07-0	1,2-Dichloroethane-D4	94%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	83%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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SGS North America Inc.

Report of Analysis

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Client Sample ID:	HSSER-TBLK02-051220	Date Sampled:	05/14/20
Lab Sample ID:	JD7282-12	Date Received:	05/15/20
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A258172.D	1	05/20/20 14:15	ED	n/a	n/a	VA10060
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00057	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00060	mg/l	
75-35-4	1,1-Dichloroethene	ND	0.0010	0.00059	mg/l	
156-59-2	cis-1,2-Dichloroethene	ND	0.0010	0.00051	mg/l	
156-60-5	trans-1,2-Dichloroethene	ND	0.0010	0.00054	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00060	mg/l	
75-09-2	Methylene chloride	ND	0.0020	0.0010	mg/l	
127-18-4	Tetrachloroethene	ND	0.0010	0.00090	mg/l	
108-88-3	Toluene	ND	0.0010	0.00053	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00054	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00053	mg/l	
79-01-6	Trichloroethene	ND	0.0010	0.00053	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00079	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		80-120%
17060-07-0	1,2-Dichloroethane-D4	92%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	80%		80-120%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Misc. Forms**5****Custody Documents and Other Forms**

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

6WCP
WTH
WTH
CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3480
www.sgs.com/ehsusa

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FED-EX Tracking # 12160805342 Bottle Order Control #
SGS Quote # SGS Job # JD7282

Client / Reporting Information		Project Information		Requested Analysis						Matrix Codes		
Company Name: AICOM	Project Name: UTAS SER Plants 1/2 Facility	Street Address: 41300 Winfield Rd	Street:							DW - Drinking Water		
City: Kenosha State: IL Zip: 60555	City: Rockford State: IL							GW - Ground Water				
Project Contact: Peter.Hellate@Aicom.com	E-mail: (606)27752							MN - Water				
Phone #	Client Purchase Order #							SW - Surface Water				
Sampler(s) Name(s): A.Hellate/A.Sukolansky	Phone #	Project Manager: Peter.Hellate	Attention:							SO - Soll		
				Collection	# of bottles	Number of preserved Bottles				SL - Sludge		
SOS Sample #	Field ID / Point of Collection	MEOH/Vial #	Date	Time	Sampled by	Spec (C) Comp (C)	Matrix	# of bottles	NH3 NH4 HNO3 H2SO4 HCl D/Water MEOH ENCLOS	SC - Sediment		
1	HISER-RAMW08-051220		5-12-20	1400	AH	G	GW	3	X	OI - Oil		
2	HISER-RAMW07-051320		5-13-20	1010	AH	G	GW	3	X	LIO - Other Liquid		
3	HISER-RAMW06-051320		5-13-20	1115	AH	G	GW	3	X	AIR - Air		
4	HISER-RAMW05-051320		5-13-20	1220	AH	G	GW	3	X	SOL - Solid		
5	HISER-RAMW04-051320		5-13-20	1315	AH	G	GW	3	X	WP - Wipe		
6	HISER-FBLK02-051320		5-13-20	1325	AH	G	GW	3	X	FB - Field Blank		
7	HISER-RAMW03-051320		5-13-20	1420	AH	G	GW	3	X	EB-Equipment Blank		
8	HISER-RAMW02-051320		5-13-20	0000	AH	G	GW	3	X	RB - Rinse Blank		
9	HISER-RAMW03-051420		5-14-20	0945	AH	G	GW	3	X	TB - Trip Blank		
10	HISER-M502-051420		5-14-20	0945	AH	G	GW	3	X			
11	HISER-FBLK02-051420		5-14-20	1010	AH	G	GW	3	X			
Turn Around Time (Business Days)				Deliverable						Comments / Special Instructions		
<input checked="" type="checkbox"/> 10 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 3 Business Days* <input type="checkbox"/> 2 Business Days* <input type="checkbox"/> 1 Business Day* <input type="checkbox"/> Other _____				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NJ Reduced (Level 3) <input type="checkbox"/> Full Tier I (Level 4) <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NJ DKQF						<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> MA MCP Criteria <input type="checkbox"/> CT RCR Criteria <input type="checkbox"/> State Form <input type="checkbox"/> EDD Format		
Initial Assessment: 3APP										* List 13 VGC's http://www.sgs.com/en/terms-and-conditions		
Label Verification _____												
Sample Custody must be documented below each time samples change possession, including courier delivery.												

Relinquished by: John M. H.	Date / Time: 5-14-20 1300	Received By: fedex 12160805342	Relinquished By: fedex	Date / Time: 5/15/2020 10:00	Received By: John M. H.
Relinquished by: 3	Date / Time: 5	Received By: 4	Relinquished By: 4	Date / Time: 5/15/2020 10:00	Received By: John M. H.
Relinquished by: 5	Date / Time: 5	Received By: 5	Custody Seal #: 1094	Intact: ✓	Preserved where applicable: Not intact Absent
Date / Time: 5/15/2020 10:00 Received By: John M. H. On Ice: ✓ Cooler Temp: 2.40 Sp					

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

JD7282: Chain of Custody

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CHAIN OF CUSTODY

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Client / Reporting Information		Project Information		FED-EX Tracking #		Bottle Order Control #	
Company Name: AECOM Street Address: 4320 Winfield Rd		Project Name: UTAS SED Plants 1/2 Facility		SGS Quote #		SGS Job #	
City: Warrenville IL State: IL Zip: 60555		Street: Buckley + C				JD7282	
Project Contact: Peter.Hull@AECOM.com E-mail: lwl627752		Project #: lwl627752		Billing Information (if different from Report to)			
Phone #: AHL112/H.S.16000323		Client Purchase Order #		Company Name			
Sampler(s) Name(s): AHL112/H.S.16000323		Phone #: Peter.Hull@AHL112		Street Address			
Project Manager:		Attention:					
SGS Sample #	Field ID / Point of Collection	Collection				Number of preserved Bottles	
		Date	Time	Sampled by	Grab (G) Core (C)	Matrix	# of bottles
11	HSER-AHL112/01-05/4/20	5/4/20	1100	AHL	GW	3	X
12	HSER-TBLKO2-05/12/20	5/4/20	-	-	GW	2	X
Turn Around Time (Business Days)							
Approved By (SGS PM): Date: _____				Deliverable			
<input checked="" type="checkbox"/> 10 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 3 Business Days* <input type="checkbox"/> 2 Business Days* <input type="checkbox"/> 1 Business Day* <input type="checkbox"/> Other _____				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NJ Reduced (Level 3) <input type="checkbox"/> Full Tier I (Level 4) <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NJ DKGP			
				<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> MA MCP Criteria _____ <input type="checkbox"/> CT RCP Criteria _____ <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format			
				<input type="checkbox"/> DOD-QSM5			
Comments / Special Instructions							
<input type="checkbox"/> List 13 VOC's <input type="checkbox"/> QC VOC							
Commercial "A" = Results only, Commercial "B" = Results + QC Summary Commercial "C" = Results + QC Summary + Partial Raw data							
Approval needed for 1-3 Business Day TAT							
Sample Custody must be documented below each time samples change possession, including courier delivery.							
Rerlinquished by: <i>John M. Hull</i>		Date / Time: 5/4/20 1201 Received By: Feder 1215 (630 5342		Rerlinquished By: RX		Date / Time: 10:00 Received By: 5/5/2020	
Rerlinquished by: 3		Date / Time: 3 Received By: 3		Rerlinquished By: 4		Date / Time: 2 Received By: 4	
Rerlinquished by: 5		Date / Time: 5 Received By: 5		Custody Seal # <input type="checkbox"/> Intact <input type="checkbox"/> Not intact <input type="checkbox"/> Absent <input type="checkbox"/> Where applicable		On Ice <input type="checkbox"/> Cooler Temp. *C <input type="checkbox"/>	
Therm. ID: _____							
http://www.sgs.com/en/terms-and-conditions							

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsxs

JD7282: Chain of Custody
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SGS Sample Receipt Summary

Job Number: JD7282 Client: AECOM, INC. Project: ENSRILW: UTAS PLANTS 1/2 FACILITY, ROCK
 Date / Time Received: 5/15/2020 10:00:00 AM Delivery Method: Airbill #'s:

Cooler Temps (Raw Measured) °C: Cooler 1: (2.9);

Cooler Temps (Corrected) °C: Cooler 1: (2.6);

Cooler Security	Y or N	Y or N	Sample Integrity - Documentation	Y or N		
1. Custody Seals Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		
2. Custody Seals Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Container labeling complete:	<input checked="" type="checkbox"/>		
			3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		
Cooler Temperature		Y or N	Sample Integrity - Condition			
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		1. Sample recvd within HT:	<input checked="" type="checkbox"/>		
2. Cooler temp verification:	IR Gun		2. All containers accounted for:	<input checked="" type="checkbox"/>		
3. Cooler media:	Ice (Bag)		3. Condition of sample:	Intact		
4. No. Coolers:	1					
Quality Control Preservation		Y or N	N/A	Sample Integrity - Instructions	Y or N	N/A
1. Trip Blank present / cooler:	<input checked="" type="checkbox"/>			1. Analysis requested is clear:	<input checked="" type="checkbox"/>	
2. Trip Blank listed on COC:	<input checked="" type="checkbox"/>			2. Bottles received for unspecified tests	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>			3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>	
4. VOCs headspace free:	<input checked="" type="checkbox"/>			4. Compositing instructions clear:	<input type="checkbox"/>	<input type="checkbox"/>
				5. Filtering instructions clear:	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Test Strip Lot #: pH 1-12: 229517 pH 12+: 208717 Other: (Specify) _____

Comments

SM089-03
Rev. Date 12/7/17

JD7282: Chain of Custody

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5.1

SGS North America Inc.

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JD7282

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60627752

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD7282-1	Collected: 12-MAY-20 14:00 By: AH HSSER-RAMW08-051220			Received: 15-MAY-20 By: DG		
JD7282-1	SW846 8260C	20-MAY-20 14:43	ED			V8260SL
JD7282-2	Collected: 13-MAY-20 10:10 By: AH HSSER-RAMW07-051320			Received: 15-MAY-20 By: DG		
JD7282-2	SW846 8260C	20-MAY-20 15:12	ED			V8260SL
JD7282-3	Collected: 13-MAY-20 11:15 By: AH HSSER-RAMW06-051320			Received: 15-MAY-20 By: DG		
JD7282-3	SW846 8260C	20-MAY-20 15:40	ED			V8260SL
JD7282-3	SW846 8260C	21-MAY-20 16:06	RS			V8260SL
JD7282-4	Collected: 13-MAY-20 12:20 By: AH HSSER-RAMW05-051320			Received: 15-MAY-20 By: DG		
JD7282-4	SW846 8260C	21-MAY-20 16:32	RS			V8260SL
JD7282-5	Collected: 13-MAY-20 13:15 By: AH HSSER-RAMW04-051320			Received: 15-MAY-20 By: DG		
JD7282-5	SW846 8260C	20-MAY-20 16:37	ED			V8260SL
JD7282-6	Collected: 13-MAY-20 13:25 By: AH HSSER-EBLK02-051320			Received: 15-MAY-20 By: DG		
JD7282-6	SW846 8260C	20-MAY-20 17:06	ED			V8260SL
JD7282-7	Collected: 13-MAY-20 14:20 By: AH HSSER-RAMW03-051320			Received: 15-MAY-20 By: DG		
JD7282-7	SW846 8260C	20-MAY-20 17:34	ED			V8260SL
JD7282-8	Collected: 13-MAY-20 00:00 By: AH HSSER-DUP02-051320			Received: 15-MAY-20 By: DG		
JD7282-8	SW846 8260C	20-MAY-20 18:03	ED			V8260SL

Internal Sample Tracking Chronicle

United Technologies Corporation

Job No: JD7282

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60627752

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD7282-9	HSSEN-RAMW02-051420	Collected: 14-MAY-20 09:45	By: AH	Received: 15-MAY-20	By: DG	
JD7282-9	SW846 8260C	20-MAY-20 11:24	ED			V8260SL
JD7282-10	HSSEN-FBLK02-051420	Collected: 14-MAY-20 10:10	By: AH	Received: 15-MAY-20	By: DG	
JD7282-10	SW846 8260C	20-MAY-20 18:31	ED			V8260SL
JD7282-11	HSSEN-RAMW01-051420	Collected: 14-MAY-20 11:00	By: AH	Received: 15-MAY-20	By: DG	
JD7282-11	SW846 8260C	20-MAY-20 11:53	ED			V8260SL
JD7282-12	HSSEN-TBLK02-051220	Collected: 14-MAY-20 11:00	By: AH	Received: 15-MAY-20	By: DG	
JD7282-12	SW846 8260C	20-MAY-20 14:15	ED			V8260SL

SGS Internal Chain of Custody

Page 1 of 2

Job Number: JD7282
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 05/15/20

Sample/Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD7282-1.1	Secured Storage	Edward Durner	05/20/20 12:30	Retrieve from Storage
JD7282-1.1	Edward Durner	GCMSA	05/20/20 12:30	Load on Instrument
JD7282-1.1	GCMSA	Edward Durner	05/21/20 12:07	Unload from Instrument
JD7282-1.1	Edward Durner	Secured Storage	05/21/20 12:07	Return to Storage
JD7282-2.1	Secured Storage	Edward Durner	05/20/20 12:30	Retrieve from Storage
JD7282-2.1	Edward Durner	GCMSA	05/20/20 12:30	Load on Instrument
JD7282-2.1	GCMSA	Edward Durner	05/21/20 12:07	Unload from Instrument
JD7282-2.1	Edward Durner	Secured Storage	05/21/20 12:07	Return to Storage
JD7282-3.1	Secured Storage	Edward Durner	05/20/20 12:30	Retrieve from Storage
JD7282-3.1	Edward Durner	GCMSA	05/20/20 12:30	Load on Instrument
JD7282-3.1	GCMSA	Edward Durner	05/21/20 12:07	Unload from Instrument
JD7282-3.1	Edward Durner	Secured Storage	05/21/20 12:07	Return to Storage
JD7282-3.2	Secured Storage	Robert Szot	05/21/20 15:43	Retrieve from Storage
JD7282-3.2	Robert Szot	GCMS2V	05/21/20 15:43	Load on Instrument
JD7282-3.2	GCMS2V	Robert Szot	05/26/20 12:01	Unload from Instrument
JD7282-3.2	Robert Szot	Secured Storage	05/26/20 12:01	Return to Storage
JD7282-4.1	Secured Storage	Edward Durner	05/20/20 12:30	Retrieve from Storage
JD7282-4.1	Edward Durner	GCMSA	05/20/20 12:30	Load on Instrument
JD7282-4.1	GCMSA	Edward Durner	05/21/20 12:07	Unload from Instrument
JD7282-4.1	Edward Durner	Secured Storage	05/21/20 12:07	Return to Storage
JD7282-4.2	Secured Storage	Robert Szot	05/21/20 15:43	Retrieve from Storage
JD7282-4.2	Robert Szot	GCMS2V	05/21/20 15:43	Load on Instrument
JD7282-4.2	GCMS2V	Robert Szot	05/26/20 12:01	Unload from Instrument
JD7282-4.2	Robert Szot	Secured Storage	05/26/20 12:01	Return to Storage
JD7282-5.1	Secured Storage	Edward Durner	05/20/20 12:30	Retrieve from Storage
JD7282-5.1	Edward Durner	GCMSA	05/20/20 12:30	Load on Instrument
JD7282-5.1	GCMSA	Edward Durner	05/21/20 12:07	Unload from Instrument
JD7282-5.1	Edward Durner	Secured Storage	05/21/20 12:07	Return to Storage
JD7282-6.1	Secured Storage	Edward Durner	05/20/20 12:30	Retrieve from Storage
JD7282-6.1	Edward Durner	GCMSA	05/20/20 12:30	Load on Instrument
JD7282-6.1	GCMSA	Edward Durner	05/21/20 12:07	Unload from Instrument
JD7282-6.1	Edward Durner	Secured Storage	05/21/20 12:07	Return to Storage
JD7282-7.1	Secured Storage	Edward Durner	05/20/20 12:30	Retrieve from Storage
JD7282-7.1	Edward Durner	GCMSA	05/20/20 12:30	Load on Instrument
JD7282-7.1	GCMSA	Edward Durner	05/21/20 12:07	Unload from Instrument
JD7282-7.1	Edward Durner	Secured Storage	05/21/20 12:07	Return to Storage

SGS Internal Chain of Custody

Page 2 of 2

Job Number: JD7282
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Received: 05/15/20

Sample/Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD7282-8.1	Secured Storage	Edward Durner	05/20/20 12:30	Retrieve from Storage
JD7282-8.1	Edward Durner	GCMSA	05/20/20 12:30	Load on Instrument
JD7282-8.1	GCMSA	Edward Durner	05/21/20 12:07	Unload from Instrument
JD7282-8.1	Edward Durner	Secured Storage	05/21/20 12:07	Return to Storage
JD7282-9.1	Secured Storage	Edward Durner	05/20/20 12:30	Retrieve from Storage
JD7282-9.1	Edward Durner	GCMSA	05/20/20 12:30	Load on Instrument
JD7282-9.1	GCMSA	Edward Durner	05/21/20 12:07	Unload from Instrument
JD7282-9.1	Edward Durner	Secured Storage	05/21/20 12:07	Return to Storage
JD7282-9.2	Secured Storage	Edward Durner	05/20/20 12:30	Retrieve from Storage
JD7282-9.2	Edward Durner	GCMSA	05/20/20 12:30	Load on Instrument
JD7282-9.2	GCMSA	Edward Durner	05/21/20 12:07	Unload from Instrument
JD7282-9.2	Edward Durner	Secured Storage	05/21/20 12:07	Return to Storage
JD7282-9.3	Secured Storage	Edward Durner	05/20/20 12:30	Retrieve from Storage
JD7282-9.3	Edward Durner	GCMSA	05/20/20 12:30	Load on Instrument
JD7282-9.3	GCMSA	Edward Durner	05/21/20 12:07	Unload from Instrument
JD7282-9.3	Edward Durner	Secured Storage	05/21/20 12:07	Return to Storage
JD7282-10.1	Secured Storage	Edward Durner	05/20/20 12:30	Retrieve from Storage
JD7282-10.1	Edward Durner	GCMSA	05/20/20 12:30	Load on Instrument
JD7282-10.1	GCMSA	Edward Durner	05/21/20 12:07	Unload from Instrument
JD7282-10.1	Edward Durner	Secured Storage	05/21/20 12:07	Return to Storage
JD7282-11.1	Secured Storage	Edward Durner	05/20/20 12:30	Retrieve from Storage
JD7282-11.1	Edward Durner	GCMSA	05/20/20 12:30	Load on Instrument
JD7282-11.1	GCMSA	Edward Durner	05/21/20 12:07	Unload from Instrument
JD7282-11.1	Edward Durner	Secured Storage	05/21/20 12:07	Return to Storage
JD7282-12.1	Secured Storage	Edward Durner	05/20/20 12:30	Retrieve from Storage
JD7282-12.1	Edward Durner	GCMSA	05/20/20 12:30	Load on Instrument
JD7282-12.1	GCMSA	Edward Durner	05/21/20 12:07	Unload from Instrument
JD7282-12.1	Edward Durner	Secured Storage	05/21/20 12:07	Return to Storage

MS Volatiles**QC Data Summaries**

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports



Method Blank Summary

Job Number: JD7282
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA10060-MB	A258165.D	1	05/20/20	ED	n/a	n/a	VA10060

The QC reported here applies to the following samples:

Method: SW846 8260C

JD7282-1, JD7282-2, JD7282-3, JD7282-5, JD7282-6, JD7282-7, JD7282-8, JD7282-9, JD7282-10, JD7282-11, JD7282-12

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	90% 80-120%
17060-07-0	1,2-Dichloroethane-D4	93% 81-124%
2037-26-5	Toluene-D8	93% 80-120%
460-00-4	4-Bromofluorobenzene	84% 80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JD7282
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2V2800-MB	2V67669.D	1	05/21/20	RS	n/a	n/a	V2V2800

The QC reported here applies to the following samples:

Method: SW846 8260C

JD7282-3, JD7282-4

CAS No.	Compound	Result	RL	MDL	Units	Q
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	103%
17060-07-0	1,2-Dichloroethane-D4	80-120%
2037-26-5	Toluene-D8	93%
460-00-4	4-Bromofluorobenzene	81-124%
		111%
		100%
		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA10060-BS	A258163.D	1	05/20/20	ED	n/a	n/a	VA10060

The QC reported here applies to the following samples:**Method:** SW846 8260C

JD7282-1, JD7282-2, JD7282-3, JD7282-5, JD7282-6, JD7282-7, JD7282-8, JD7282-9, JD7282-10, JD7282-11, JD7282-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	45.1	90	79-120
107-06-2	1,2-Dichloroethane	50	45.4	91	78-126
75-35-4	1,1-Dichloroethene	50	48.2	96	69-126
156-59-2	cis-1,2-Dichloroethene	50	46.4	93	80-120
156-60-5	trans-1,2-Dichloroethene	50	47.6	95	76-120
100-41-4	Ethylbenzene	50	52.0	104	80-120
75-09-2	Methylene chloride	50	45.0	90	77-120
127-18-4	Tetrachloroethene	50	55.8	112	70-131
108-88-3	Toluene	50	49.7	99	80-120
71-55-6	1,1,1-Trichloroethane	50	52.4	105	81-128
79-00-5	1,1,2-Trichloroethane	50	51.0	102	83-118
79-01-6	Trichloroethene	50	52.4	105	80-120
75-01-4	Vinyl chloride	50	45.2	90	51-135

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	89%	80-120%
17060-07-0	1,2-Dichloroethane-D4	93%	81-124%
2037-26-5	Toluene-D8	92%	80-120%
460-00-4	4-Bromofluorobenzene	85%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2V2800-BS	2V67667.D	1	05/21/20	RS	n/a	n/a	V2V2800

The QC reported here applies to the following samples:**Method:** SW846 8260C

JD7282-3, JD7282-4

6.2.2
6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-34-3	1,1-Dichloroethane	50	55.4	111	79-120
107-06-2	1,2-Dichloroethane	50	47.8	96	78-126
75-35-4	1,1-Dichloroethene	50	55.7	111	69-126
156-59-2	cis-1,2-Dichloroethene	50	53.4	107	80-120
156-60-5	trans-1,2-Dichloroethene	50	59.2	118	76-120
100-41-4	Ethylbenzene	50	49.9	100	80-120
75-09-2	Methylene chloride	50	55.6	111	77-120
127-18-4	Tetrachloroethene	50	51.8	104	70-131
108-88-3	Toluene	50	51.1	102	80-120
71-55-6	1,1,1-Trichloroethane	50	53.7	107	81-128
79-00-5	1,1,2-Trichloroethane	50	50.2	100	83-118
79-01-6	Trichloroethene	50	54.6	109	80-120
75-01-4	Vinyl chloride	50	51.4	103	51-135

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	94%	81-124%
2037-26-5	Toluene-D8	99%	80-120%
460-00-4	4-Bromofluorobenzene	100%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD7282-9MS	A258169.D	1	05/20/20	ED	n/a	n/a	VA10060
JD7282-9MSD	A258170.D	1	05/20/20	ED	n/a	n/a	VA10060
JD7282-9	A258166.D	1	05/20/20	ED	n/a	n/a	VA10060

The QC reported here applies to the following samples:

Method: SW846 8260C

JD7282-1, JD7282-2, JD7282-3, JD7282-5, JD7282-6, JD7282-7, JD7282-8, JD7282-9, JD7282-10, JD7282-11, JD7282-12

CAS No.	Compound	JD7282-9		Spike	MS	MS	Spike	MSD	MSD	RPD	Limits Rec/RPD
		ug/l	Q	ug/l	ug/l	%	ug/l	ug/l	%		
75-34-3	1,1-Dichloroethane	ND	50	40.0	80	50	38.7	77	3	73-126/11	
107-06-2	1,2-Dichloroethane	ND	50	40.7	81	50	40.7	81	0	72-131/11	
75-35-4	1,1-Dichloroethene	ND	50	43.2	86	50	41.9	84	3	63-136/14	
156-59-2	cis-1,2-Dichloroethene	ND	50	43.1	86	50	41.5	83	4	60-136/11	
156-60-5	trans-1,2-Dichloroethene	ND	50	42.9	86	50	41.8	84	3	70-126/11	
100-41-4	Ethylbenzene	ND	50	50.9	102	50	51.3	103	1	51-140/20	
75-09-2	Methylene chloride	ND	50	38.2	76	50	37.6	75	2	73-125/13	
127-18-4	Tetrachloroethene	ND	50	54.5	109	50	55.5	111	2	61-139/11	
108-88-3	Toluene	ND	50	47.2	94	50	47.0	94	0	60-135/10	
71-55-6	1,1,1-Trichloroethane	ND	50	47.5	95	50	47.2	94	1	74-138/12	
79-00-5	1,1,2-Trichloroethane	ND	50	45.9	92	50	46.5	93	1	78-121/11	
79-01-6	Trichloroethene	ND	50	48.6	97	50	48.4	97	0	62-141/10	
75-01-4	Vinyl chloride	ND	50	42.6	85	50	40.8	82	4	43-146/15	

CAS No.	Surrogate Recoveries	MS	MSD	JD7282-9	Limits
1868-53-7	Dibromofluoromethane	91%	90%	92%	80-120%
17060-07-0	1,2-Dichloroethane-D4	91%	91%	92%	81-124%
2037-26-5	Toluene-D8	90%	92%	94%	80-120%
460-00-4	4-Bromofluorobenzene	87%	86%	86%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD7301-1MS	2V67675.D	1	05/21/20	RS	n/a	n/a	V2V2800
JD7301-1MSD	2V67677.D	1	05/21/20	RS	n/a	n/a	V2V2800
JD7301-1 ^a	2V67670.D	1	05/21/20	RS	n/a	n/a	V2V2800

The QC reported here applies to the following samples:

Method: SW846 8260C

JD7282-3, JD7282-4

CAS No.	Compound	JD7301-1		Spike	MS	MS	Spike	MSD	MSD	RPD	Limits Rec/RPD
		ug/l	Q	ug/l	ug/l	%	ug/l	ug/l	%		
75-34-3	1,1-Dichloroethane	ND		50	58.2	116	50	54.5	109	7	73-126/11
107-06-2	1,2-Dichloroethane	ND		50	46.5	93	50	46.1	92	1	72-131/11
75-35-4	1,1-Dichloroethene	ND		50	53.2	106	50	54.6	109	3	63-136/14
156-59-2	cis-1,2-Dichloroethene	ND		50	57.0	114	50	53.4	107	7	60-136/11
156-60-5	trans-1,2-Dichloroethene	ND		50	60.7	121	50	59.5	119	2	70-126/11
100-41-4	Ethylbenzene	12.1		50	61.7	99	50	66.3	108	7	51-140/20
75-09-2	Methylene chloride	ND		50	58.3	117	50	54.1	108	7	73-125/13
127-18-4	Tetrachloroethene	ND		50	50.2	100	50	60.0	120	18* ^b	61-139/11
108-88-3	Toluene	ND		50	55.9	112	50	57.6	115	3	60-135/10
71-55-6	1,1,1-Trichloroethane	ND		50	49.5	99	50	55.4	111	11	74-138/12
79-00-5	1,1,2-Trichloroethane	ND		50	55.6	111	50	56.0	112	1	78-121/11
79-01-6	Trichloroethene	ND		50	52.3	105	50	56.6	113	8	62-141/10
75-01-4	Vinyl chloride	ND		50	40.1	80	50	37.9	76	6	43-146/15

CAS No.	Surrogate Recoveries	MS	MSD	JD7301-1	Limits
1868-53-7	Dibromofluoromethane	102%	102%	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	92%	88%	100%	81-124%
2037-26-5	Toluene-D8	109%	109%	102%	80-120%
460-00-4	4-Bromofluorobenzene	99%	101%	99%	80-120%

(a) Results reported from the HCl preserved sample. The reported result for acrolein is for screening only and cannot be used for compliance purposes.

(b) Outside control limits due to matrix interference.

* = Outside of Control Limits.

6.3.2

Instrument Performance Check (BFB)

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2V2712-BFB	Injection Date: 03/07/20
Lab File ID: 2V65562.D	Injection Time: 14:46
Instrument ID: GCMS2V	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	11565	18.8	Pass
75	30.0 - 60.0% of mass 95	29648	48.2	Pass
95	Base peak, 100% relative abundance	61563	100.0	Pass
96	5.0 - 9.0% of mass 95	3973	6.45	Pass
173	Less than 2.0% of mass 174	557	0.90	(0.93) ^a Pass
174	50.0 - 120.0% of mass 95	59976	97.4	Pass
175	5.0 - 9.0% of mass 174	4759	7.73	(7.93) ^a Pass
176	95.0 - 101.0% of mass 174	56989	92.6	(95.0) ^a Pass
177	5.0 - 9.0% of mass 176	3588	5.83	(6.30) ^b Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2V2712-IC2712	2V65563.D	03/07/20	15:18	00:32	Initial cal 0.2
V2V2712-IC2712	2V65564.D	03/07/20	15:43	00:57	Initial cal 0.5
V2V2712-IC2712	2V65565.D	03/07/20	16:08	01:22	Initial cal 1
V2V2712-IC2712	2V65566.D	03/07/20	16:34	01:48	Initial cal 2
V2V2712-IC2712	2V65567.D	03/07/20	16:59	02:13	Initial cal 4
V2V2712-IC2712	2V65568.D	03/07/20	17:25	02:39	Initial cal 8
V2V2712-IC2712	2V65569.D	03/07/20	17:50	03:04	Initial cal 20
V2V2712-ICC2712	2V65570.D	03/07/20	18:16	03:30	Initial cal 50
V2V2712-IC2712	2V65571.D	03/07/20	18:42	03:56	Initial cal 100
V2V2712-IC2712	2V65572.D	03/07/20	19:07	04:21	Initial cal 200
V2V2712-ICV2712	2V65575.D	03/07/20	20:23	05:37	Initial cal verification 50
V2V2712-ICV2712	2V65576.D	03/07/20	20:49	06:03	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	V2V2800-BFB	Injection Date:	05/21/20
Lab File ID:	2V67666.D	Injection Time:	08:30
Instrument ID:	GCMS2V		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	11164	15.6	Pass
75	30.0 - 60.0% of mass 95	32685	45.5	Pass
95	Base peak, 100% relative abundance	71757	100.0	Pass
96	5.0 - 9.0% of mass 95	4688	6.53	Pass
173	Less than 2.0% of mass 174	890	1.24	(1.28) ^a Pass
174	50.0 - 120.0% of mass 95	69600	97.0	Pass
175	5.0 - 9.0% of mass 174	5298	7.38	(7.61) ^a Pass
176	95.0 - 101.0% of mass 174	67571	94.2	(97.1) ^a Pass
177	5.0 - 9.0% of mass 176	4419	6.16	(6.54) ^b Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2V2800-CC2712	2V67666.D	05/21/20	08:30	00:00	Continuing cal 20
V2V2800-BS	2V67667.D	05/21/20	08:56	00:26	Blank Spike
V2V2800-MB	2V67669.D	05/21/20	09:47	01:17	Method Blank
JD7301-1	2V67670.D	05/21/20	10:37	02:07	(used for QC only; not part of job JD7282)
ZZZZZZ	2V67671.D	05/21/20	11:36	03:06	(unrelated sample)
ZZZZZZ	2V67672.D	05/21/20	12:01	03:31	(unrelated sample)
ZZZZZZ	2V67673.D	05/21/20	12:40	04:10	(unrelated sample)
JD7301-1MS	2V67675.D	05/21/20	14:03	05:33	Matrix Spike
JD7301-1MSD	2V67677.D	05/21/20	15:15	06:45	Matrix Spike Duplicate
JD7282-3	2V67679.D	05/21/20	16:06	07:36	HSER-RAMW06-051320
JD7282-4	2V67680.D	05/21/20	16:32	08:02	HSER-RAMW05-051320
ZZZZZZ	2V67681.D	05/21/20	16:57	08:27	(unrelated sample)
ZZZZZZ	2V67682.D	05/21/20	17:23	08:53	(unrelated sample)
ZZZZZZ	2V67683.D	05/21/20	17:48	09:18	(unrelated sample)
ZZZZZZ	2V67684.D	05/21/20	18:14	09:44	(unrelated sample)
ZZZZZZ	2V67685.D	05/21/20	18:40	10:10	(unrelated sample)
ZZZZZZ	2V67686.D	05/21/20	19:05	10:35	(unrelated sample)
ZZZZZZ	2V67687.D	05/21/20	19:31	11:01	(unrelated sample)
ZZZZZZ	2V67688.D	05/21/20	19:56	11:26	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	VA9958-BFB	Injection Date:	02/04/20
Lab File ID:	A256228.D	Injection Time:	15:40
Instrument ID:	GCMSA		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	14.95 - 40.0% of mass 95	13156	23.0	Pass
75	30.0 - 60.0% of mass 95	30864	53.9	Pass
95	Base peak, 100% relative abundance	57248	100.0	Pass
96	5.0 - 9.0% of mass 95	3983	6.96	Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) ^a Pass
174	50.0 - 120.0% of mass 95	47242	82.5	Pass
175	5.0 - 9.0% of mass 174	3543	6.19	(7.50) ^a Pass
176	95.0 - 101.0% of mass 174	46496	81.2	(98.4) ^a Pass
177	5.0 - 9.0% of mass 176	3075	5.37	(6.61) ^b Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VA9958-IC9958	A256229.D	02/04/20	16:10	00:30	Initial cal 0.2
VA9958-IC9958	A256230.D	02/04/20	16:40	01:00	Initial cal 0.5
VA9958-IC9958	A256231.D	02/04/20	17:09	01:29	Initial cal 1
VA9958-IC9958	A256232.D	02/04/20	17:39	01:59	Initial cal 2
VA9958-IC9958	A256233.D	02/04/20	18:09	02:29	Initial cal 4
VA9958-IC9958	A256234.D	02/04/20	18:38	02:58	Initial cal 8
VA9958-IC9958	A256235.D	02/04/20	19:08	03:28	Initial cal 20
VA9958-ICC9958	A256236.D	02/04/20	19:37	03:57	Initial cal 50
VA9958-IC9958	A256237.D	02/04/20	20:07	04:27	Initial cal 100
VA9958-IC9958	A256238.D	02/04/20	20:36	04:56	Initial cal 200
VA9958-ICV9958	A256241.D	02/04/20	22:04	06:24	Initial cal verification 50
VA9958-ICV9958	A256242.D	02/04/20	22:34	06:54	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample:	VA10060-BFB	Injection Date:	05/20/20
Lab File ID:	A258161.D	Injection Time:	08:15
Instrument ID:	GCMSA		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	14.95 - 40.0% of mass 95	10749	20.2	Pass
75	30.0 - 60.0% of mass 95	26085	49.0	Pass
95	Base peak, 100% relative abundance	53277	100.0	Pass
96	5.0 - 9.0% of mass 95	3676	6.90	Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) ^a Pass
174	50.0 - 120.0% of mass 95	46488	87.3	Pass
175	5.0 - 9.0% of mass 174	3862	7.25	(8.31) ^a Pass
176	95.0 - 101.0% of mass 174	45995	86.3	(98.9) ^a Pass
177	5.0 - 9.0% of mass 176	3051	5.73	(6.63) ^b Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VA10060-CC9958	A258161.D	05/20/20	08:15	00:00	Continuing cal 20
VA10060-BS	A258163.D	05/20/20	09:52	01:37	Blank Spike
VA10060-MB	A258165.D	05/20/20	10:49	02:34	Method Blank
JD7282-9	A258166.D	05/20/20	11:24	03:09	HSSER-RAMW02-051420
JD7282-11	A258167.D	05/20/20	11:53	03:38	HSSER-RAMW01-051420
ZZZZZZ	A258168.D	05/20/20	12:21	04:06	(unrelated sample)
JD7282-9MS	A258169.D	05/20/20	12:49	04:34	Matrix Spike
JD7282-9MSD	A258170.D	05/20/20	13:18	05:03	Matrix Spike Duplicate
JD7282-12	A258172.D	05/20/20	14:15	06:00	HSSER-TBLK02-051220
JD7282-1	A258173.D	05/20/20	14:43	06:28	HSSER-RAMW08-051220
JD7282-2	A258174.D	05/20/20	15:12	06:57	HSSER-RAMW07-051320
JD7282-3	A258175.D	05/20/20	15:40	07:25	HSSER-RAMW06-051320
JD7282-5	A258177.D	05/20/20	16:37	08:22	HSSER-RAMW04-051320
JD7282-6	A258178.D	05/20/20	17:06	08:51	HSSER-EBLK02-051320
JD7282-7	A258179.D	05/20/20	17:34	09:19	HSSER-RAMW03-051320
JD7282-8	A258180.D	05/20/20	18:03	09:48	HSSER-DUP02-051320
JD7282-10	A258181.D	05/20/20	18:31	10:16	HSSER-FBLK02-051420

Internal Standard Area Summary

Page 1 of 1

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Check Std:	V2V2800-CC2712	Injection Date:	05/21/20
Lab File ID:	2V67666.D	Injection Time:	08:30
Instrument ID:	GCMS2V	Method:	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	99095	2.93	230061	4.14	336240	4.70	287843	7.09	129857	9.29
Upper Limit ^a	198190	3.43	460122	4.64	672480	5.20	575686	7.59	259714	9.79
Lower Limit ^b	49548	2.43	115031	3.64	168120	4.20	143922	6.59	64929	8.79

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2V2800-BS	98904	2.94	222231	4.14	320771	4.70	266712	7.09	130560	9.29
V2V2800-MB	97133	2.93	208646	4.14	324306	4.70	244480	7.09	128045	9.29
JD7301-1	92288	2.93	226726	4.14	307303	4.70	262340	7.09	128956	9.29
ZZZZZZ	87815	2.93	206528	4.14	280953	4.70	215175	7.09	119366	9.29
ZZZZZZ	92651	2.93	206959	4.14	296906	4.70	232911	7.09	116378	9.29
ZZZZZZ	91888	2.93	205367	4.14	299713	4.70	233073	7.09	123648	9.29
JD7301-1MS	93102	2.94	204905	4.14	320117	4.70	248235	7.09	125861	9.29
JD7301-1MSD	100705	2.94	227096	4.14	319665	4.70	254885	7.09	131084	9.29
JD7282-3	97175	2.94	233628	4.14	322322	4.70	269329	7.09	123322	9.29
JD7282-4	97401	2.94	223888	4.14	323723	4.70	275191	7.09	126013	9.29
ZZZZZZ	103868	2.93	227720	4.14	276925	4.70	281154	7.09	128378	9.29
ZZZZZZ	99449	2.94	228971	4.14	312341	4.70	244012	7.09	128602	9.29
ZZZZZZ	96316	2.93	209511	4.14	285021	4.70	245474	7.08	122022	9.29
ZZZZZZ	116933	2.94	225648	4.14	319342	4.70	270538	7.09	133123	9.29
ZZZZZZ	109452	2.93	205194	4.14	321567	4.70	268396	7.09	127162	9.29
ZZZZZZ	97996	2.93	218906	4.14	309533	4.70	227978	7.09	120473	9.29
ZZZZZZ	94020	2.93	214732	4.14	308862	4.70	242690	7.09	117375	9.29
ZZZZZZ	96279	2.93	221516	4.14	288013	4.70	235998	7.09	125173	9.29

IS 1 = Tert Butyl Alcohol-D9

IS 2 = Pentafluorobenzene

IS 3 = 1,4-Difluorobenzene

IS 4 = Chlorobenzene-D5

IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.5.1
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Internal Standard Area Summary

Page 1 of 1

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Check Std:	VA10060-CC9958	Injection Date:	05/20/20
Lab File ID:	A258161.D	Injection Time:	08:15
Instrument ID:	GCMSA	Method:	SW846 8260C

	IS 1 AREA	IS 2 AREA	IS 3 AREA	IS 4 AREA	IS 5 AREA	
	RT	RT	RT	RT	RT	RT
Check Std	350178	8.12	172187	10.50	250618	11.46
Upper Limit ^a	700356	8.62	344374	11.00	501236	11.96
Lower Limit ^b	175089	7.62	86094	10.00	125309	10.96

Lab Sample ID	IS 1 AREA	IS 2 AREA	IS 3 AREA	IS 4 AREA	IS 5 AREA	
	RT	RT	RT	RT	RT	RT
VA10060-BS	312694	8.11	167132	10.49	253629	11.46
VA10060-MB	304203	8.12	164959	10.49	243359	11.46
JD7282-9	306893	8.12	169317	10.50	257053	11.46
JD7282-11	309693	8.11	158312	10.49	235721	11.46
ZZZZZZ	301126	8.12	158183	10.49	246625	11.46
JD7282-9MS	299536	8.14	176675	10.49	272467	11.46
JD7282-9MSD	314471	8.15	192766	10.50	289821	11.46
JD7282-12	305306	8.11	171447	10.50	252329	11.46
JD7282-1	328721	8.12	178824	10.50	263317	11.46
JD7282-2	293985	8.12	166239	10.50	253445	11.46
JD7282-3	298402	8.11	167774	10.49	246780	11.46
JD7282-5	297084	8.12	157428	10.49	231681	11.46
JD7282-6	266615	8.11	150242	10.50	223229	11.46
JD7282-7	271936	8.13	155313	10.50	229365	11.46
JD7282-8	277027	8.12	155396	10.50	230955	11.46
JD7282-10	279671	8.12	152224	10.50	229180	11.46

IS 1 = Tert Butyl Alcohol-D9

IS 2 = Pentafluorobenzene

IS 3 = 1,4-Difluorobenzene

IS 4 = Chlorobenzene-D5

IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Page 1 of 1

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Method: SW846 8260C

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD7282-1	A258173.D	90	92	93	83
JD7282-2	A258174.D	93	93	93	82
JD7282-3	2V67679.D	97	90	99	96
JD7282-3	A258175.D	91	92	92	82
JD7282-4	2V67680.D	102	94	90	101
JD7282-5	A258177.D	91	91	94	84
JD7282-6	A258178.D	91	90	93	82
JD7282-7	A258179.D	91	91	94	82
JD7282-8	A258180.D	92	90	93	83
JD7282-9	A258166.D	92	92	94	86
JD7282-10	A258181.D	92	91	95	84
JD7282-11	A258167.D	93	94	92	83
JD7282-12	A258172.D	90	92	92	80
JD7282-9MS	A258169.D	91	91	90	87
JD7282-9MSD	A258170.D	90	91	92	86
JD7301-1MS	2V67675.D	102	92	109	99
JD7301-1MSD	2V67677.D	102	88	109	101
V2V2800-BS	2V67667.D	101	94	99	100
V2V2800-MB	2V67669.D	103	93	111	100
VA10060-BS	A258163.D	89	93	92	85
VA10060-MB	A258165.D	90	93	93	84

Surrogate Compounds

Recovery Limits

S1 = Dibromofluoromethane

80-120%

S2 = 1,2-Dichloroethane-D4

81-124%

S3 = Toluene-D8

80-120%

S4 = 4-Bromofluorobenzene

80-120%

6.6.1
6

Initial Calibration Summary

Page 1 of 5

Job Number: JD7282

Sample: V2V2712-ICC2712

Account: UTC United Technologies Corporation

Lab FileID: 2V65570.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Response Factor Report MS2V

Method : C:\MSDCHEM\1\METHODS\M2V2712.M (RTE Integrator)
 Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 Last Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

Calibration Files

4 =2V65567.D	0.5 =2V65564.D	8 =2V65568.D	50 =2V65570.D
100 =2V65571.D	1 =2V65565.D	200 =2V65572.D	20 =2V65569.D
2 =2V65566.D	0.2 =2V65563.D	=	=

Compound

	4	0.5	8	50	100	1	200	20	2	0.2	Avg	%RSD
--	---	-----	---	----	-----	---	-----	----	---	-----	-----	------

1) I tert butyl alcohol-d9	-----ISTD-----										
2) ethanol											
	0.150	0.155	0.147	0.137	0.174		0.159	0.165		0.155	7.80
3) tertiary butyl alcohol	1.921	1.910	1.822	1.766	2.227	1.801	1.927	2.041		1.927	7.76
4) 1,4-dioxane	0.165	0.173	0.167	0.165		0.169	0.175	0.163		0.168	2.62
5) I pentafluorobenzene	-----ISTD-----										
6) chlorodifluoromethane	*This compound does not meet initial calibration criteria*										
	0.576	0.615	0.571	0.571	0.597	0.605	0.578	0.565	0.588	0.585	2.94
7) dichlorodifluoromethane	0.568	0.536	0.549	0.559	0.584	0.583	0.569	0.553	0.588	0.566	3.11
8) chloromethane	0.482	0.564	0.476	0.460	0.468	0.522	0.451	0.464	0.524	0.490	7.75
9) vinyl chloride	0.541	0.532	0.555	0.555	0.572	0.569	0.541	0.550	0.564	0.472	0.545
10) bromomethane	0.257	0.278	0.263	0.272	0.324	0.275	0.316	0.266	0.251	0.278	9.16
11) chloroethane	0.270	0.328	0.271	0.270	0.283	0.312	0.283	0.261	0.282	0.284	7.65
12) trichlorofluoromethane	0.786	0.827	0.797	0.796	0.840	0.824	0.816	0.804	0.836	0.793	0.812
13) vinyl bromide	0.371	0.417	0.359	0.363	0.383	0.372	0.376	0.357	0.380	0.261	0.364
14) 1,3-butadiene	0.374	0.421	0.361	0.368	0.374	0.391	0.353	0.357	0.343	0.371	6.28
15) ethyl ether	0.224	0.219	0.229	0.230	0.243	0.245	0.236	0.233	0.239	0.233	3.67
16) 2-chloropropane	0.691	0.726	0.667	0.665	0.685	0.713	0.661	0.668	0.689	0.685	3.30
17) acrolein	0.060	0.057	0.063	0.069		0.069	0.066			0.064	7.83
18) freon 113	0.401	0.357	0.405	0.399	0.416	0.374	0.401	0.394	0.397	0.394	4.50
19) 1,1-dichloroethene	0.623	0.621	0.634	0.648	0.665	0.666	0.640	0.637	0.635	0.472	0.624
20) acetone	0.043	0.039	0.042	0.043	0.039	0.041	0.042	0.039		0.041	4.34
21) acetonitrile	0.063	0.058	0.058	0.060	0.061	0.057	0.059	0.061		0.060	3.01
22) iodomethane	*This compound does not meet initial calibration criteria*										

6.7.1
6

Initial Calibration Summary

Page 2 of 5

Job Number: JD7282

Sample: V2V2712-ICC2712

Account: UTC United Technologies Corporation

Lab FileID: 2V65570.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	0.076	0.122	0.337	0.407	0.423	0.223	0.040	0.233	68.37
23)	carbon disulfide								
	0.972	1.128	0.956	0.949	0.986	0.977	0.993	0.943	0.952
24)	methylene chloride								
	0.439	0.483	0.438	0.432	0.449	0.486	0.445	0.434	0.458
25)	methyl acetate								
	0.365		0.376	0.388	0.370		0.353	0.371	0.378
26)	methyl tert butyl ether								
	1.294	1.243	1.273	1.298	1.341	1.284	1.320	1.310	1.296
27)	trans-1,2-dichloroethene								
	0.435	0.402	0.410	0.429	0.443	0.471	0.441	0.424	0.433
28)	hexane								
	0.260		0.251	0.271	0.278	0.261	0.275	0.268	0.246
29)	di-isopropyl ether								
	1.267	1.282	1.256	1.241	1.270	1.275	1.243	1.272	1.240
30)	ethyl tert-butyl ether								
	1.303	1.245	1.287	1.298	1.336	1.337	1.326	1.307	1.310
31)	1,1-dichloroethane								
	0.733	0.717	0.735	0.731	0.749	0.793	0.743	0.756	0.735
32)	chloroprene								
	0.599	0.596	0.594	0.618	0.632	0.577	0.617	0.603	0.572
33)	acrylonitrile								
	0.166		0.163	0.170	0.178		0.172	0.168	0.156
34)	vinyl acetate								
	0.081		0.090	0.090	0.099		0.096	0.093	
35)	ethyl acetate								
	0.068		0.070	0.080	0.084		0.082	0.082	
36)	2-butanone								
	0.059		0.058	0.062	0.065	0.052	0.063	0.062	0.057
37)	2,2-dichloropropane								
	0.661	0.671	0.671	0.669	0.698	0.688	0.690	0.691	0.688
38)	cis-1,2-dichloroethene								
	0.495	0.498	0.489	0.494	0.512	0.538	0.507	0.495	0.501
39)	propionitrile								
	0.061	0.055	0.059	0.062	0.064	0.059	0.061	0.063	0.062
40)	methyl acrylate								
	0.077		0.071	0.083	0.086		0.084	0.079	
41)	bromochloromethane								
	0.264	0.201	0.261	0.264	0.269	0.236	0.263	0.265	0.249
42)	tetrahydrofuran								
	0.063		0.062	0.065	0.068		0.065	0.065	
43)	chloroform								
	0.849	0.864	0.816	0.825	0.860	0.942	0.850	0.837	0.869
44)	dibromofluoromethane (s)								
	0.451	0.444	0.444	0.448	0.442	0.446	0.444	0.442	0.451
45)	methacrylonitrile								
	0.181	0.153	0.178	0.192	0.201	0.180	0.197	0.193	0.164
46)	1,1,1-trichloroethane								
	0.752	0.782	0.767	0.782	0.817	0.794	0.803	0.769	0.741
47)	cyclohexane								
	0.547	0.547	0.582	0.558	0.586	0.567	0.574	0.571	0.595
48)	1,1-dichloropropene								
	0.578	0.598	0.615	0.608	0.635	0.641	0.618	0.605	0.586
49)	carbon tetrachloride								
	0.664	0.667	0.693	0.702	0.746	0.660	0.730	0.696	0.672
50)	isobutyl alcohol								
	0.014		0.015	0.016	0.017		0.015	0.017	
51)	tert-amyl alcohol								
	0.024		0.024	0.025	0.026		0.023	0.025	0.022

Initial Calibration Summary

Page 3 of 5

Job Number: JD7282

Sample: V2V2712-ICC2712

Account: UTC United Technologies Corporation

Lab FileID: 2V65570.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

52)	I	1,4-difluorobenzene	-----ISTD-----		
53)		1,2-dichloroethane-d4 (s)	0.309 0.304 0.303 0.305 0.299 0.303 0.291 0.295 0.308 0.302 0.302	1.87	
54)	n-butyl alcohol		0.012 0.013 0.012 0.013 0.014 0.012 0.013 0.013 0.013 0.010 0.013	7.46	
55)	benzene		1.176 1.258 1.193 1.182 1.225 1.244 1.202 1.199 1.230 1.249 1.216	2.42	
56)	tert-amyl methyl ether		0.952 0.992 0.983 0.974 1.016 1.013 0.999 0.996 0.973 1.052 0.995	2.79	
57)	iso-octane		0.667 0.689 0.673 0.692 0.723 0.690 0.703 0.688	0.691	
58)	heptane		0.145 0.154 0.152 0.161 0.162 0.157 0.156 0.160	0.156	
59)	isopropyl acetate		0.079 0.081 0.084 0.088	0.085 0.082 0.092	0.085
60)	1,2-dichloroethane		0.486 0.528 0.485 0.470 0.482 0.534 0.474 0.481 0.474	0.490	
61)	trichloroethene		0.340 0.335 0.339 0.351 0.364 0.357 0.359 0.345 0.345 0.259	0.339	
62)	ethyl acrylate		0.448 0.401 0.449 0.456 0.480 0.462 0.463 0.462 0.423	0.450	
63)	2-nitropropane		0.090 0.085 0.093 0.109	0.107 0.090 0.092	0.095
64)	2-chloroethyl vinyl ether		0.226 0.213 0.223 0.233 0.244 0.207 0.237 0.231 0.216 0.196	0.223	
65)	methyl methacrylate		0.088 0.097 0.103 0.108	0.104 0.103 0.097	0.100
66)	1,2-dichloropropane		0.304 0.299 0.303 0.306 0.319 0.295 0.312 0.307 0.310	0.306	
67)	methylcyclohexane		0.453 0.474 0.483 0.499 0.479 0.496 0.484 0.473	0.480	
68)	dibromomethane		0.245 0.196 0.237 0.243 0.251 0.240 0.247 0.242 0.244	0.238	
69)	bromodichloromethane		0.460 0.402 0.467 0.477 0.499 0.464 0.495 0.470 0.476 0.397	0.461	
70)	epichlorohydrin		0.038 0.037 0.040 0.041 0.037 0.039 0.039 0.040	0.039	
71)	cis-1,3-dichloropropene		0.502 0.449 0.505 0.521 0.553 0.528 0.546 0.523 0.503 0.428	0.506	
72)	4-methyl-2-pentanone		0.137 0.141 0.136 0.143 0.148 0.133 0.141 0.141 0.139 0.091	0.135	
73)	3-methyl-1-butanol		0.012 0.012 0.013 0.014 0.010 0.013 0.013 0.012	0.012	
74)	I	chlorobenzene-d5	-----ISTD-----		
75)	toluene-d8 (s)		1.270 1.279 1.299 1.260 1.247 1.278 1.254 1.280 1.283 1.298 1.275	1.37	
76)	toluene		0.927 0.998 0.960 0.927 0.968 0.975 0.952 0.950 0.934 0.965	0.956	
77)	ethyl methacrylate		0.493 0.436 0.500 0.514 0.544 0.492 0.527 0.524 0.493	0.503	
78)	trans-1,3-dichloropropene		0.547 0.541 0.560 0.585 0.622 0.560 0.615 0.589 0.570 0.555	0.574	
79)	1,1,2-trichloroethane		0.310 0.323 0.312 0.310 0.325 0.305 0.319 0.324 0.327 0.255	0.311	
80)	2-hexanone		0.165 0.144 0.164 0.172 0.178 0.164 0.167 0.173 0.165 0.120	0.161	
81)	tetrachloroethene		0.365 0.353 0.390 0.380 0.400 0.388 0.391 0.387 0.353 0.255	0.366	
82)	1,3-dichloropropane			11.56	

Initial Calibration Summary

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Job Number: JD7282

Sample: V2V2712-ICC2712

Account: UTC United Technologies Corporation

Lab FileID: 2V65570.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

83)	butyl acetate	0.583 0.569 0.580 0.569 0.591 0.600 0.579 0.595 0.580 0.446 0.569 7.82
84)	dibromochloromethane	0.269 0.247 0.261 0.265 0.286 0.226 0.271 0.276 0.255 0.262 6.72
85)	1,2-dibromoethane	0.455 0.426 0.480 0.490 0.518 0.455 0.516 0.482 0.486 0.385 0.469 8.69
86)	n-butyl ether	0.479 0.438 0.469 0.473 0.494 0.451 0.482 0.475 0.482 0.301 0.454 12.41
87)	chlorobenzene	1.374 1.399 1.430 1.412 1.483 1.387 1.448 1.457 1.390 1.420 2.60
88)	1,1,1,2-tetrachloroethane	1.103 1.270 1.127 1.087 1.144 1.151 1.122 1.114 1.140 1.035 1.129 5.28
89)	ethylbenzene	0.402 0.397 0.430 0.430 0.458 0.426 0.453 0.441 0.420 0.281 0.414 12.24
90)	m,p-xylene	1.737 1.782 1.768 1.762 1.845 1.785 1.804 1.806 1.784 1.871 1.794 2.20
91)	o-xylene	0.659 0.682 0.691 0.689 0.726 0.698 0.717 0.701 0.688 0.601 0.685 5.08
92)	styrene	1.353 1.439 1.399 1.395 1.473 1.414 1.455 1.408 1.387 1.207 1.393 5.31
93)	butyl acrylate	1.087 1.025 1.105 1.146 1.214 1.069 1.203 1.153 1.042 1.024 1.107 6.32
94)	n-amyl acetate	0.304 0.325 0.348 0.378 0.275 0.369 0.347 0.303 0.331 10.75
95)	bromoform	0.262 0.265 0.281 0.299 0.225 0.294 0.283 0.248 0.270 9.26
96)	isopropylbenzene	0.332 0.316 0.329 0.361 0.386 0.302 0.391 0.349 0.309 0.342 9.42
97)	cis-1,4-dichloro-2-butene	1.608 1.628 1.654 1.709 1.782 1.691 1.764 1.715 1.667 1.565 1.678 4.05
		0.179 0.183 0.216 0.231 0.229 0.205 0.163 0.201 13.08
98)	I 1,4-dichlorobenzene-d	-----ISTD-----
99)	4-bromofluorobenzene (s)	0.917 0.916 0.926 0.910 0.911 0.932 0.917 0.927 0.928 0.930 0.921 0.89
100)	bromobenzene	1.060 1.074 1.042 1.037 1.093 1.137 1.093 1.088 1.092 1.079 2.85
101)	1,1,2,2-tetrachloroethane	1.144 1.068 1.110 1.082 1.121 1.131 1.113 1.124 1.145 1.017 1.106 3.60
102)	trans-1,4-dichloro-2-butene	0.267 0.278 0.292 0.310 0.314 0.293 0.249 0.286 8.10
103)	1,2,3-trichloropropane	0.333 0.331 0.328 0.342 0.279 0.338 0.349 0.376 0.334 8.14
104)	n-propylbenzene	3.964 4.107 4.039 3.911 4.110 4.080 4.112 4.106 3.937 3.745 4.011 3.02
105)	2-chlorotoluene	0.901 0.941 0.927 0.888 0.940 0.973 0.948 0.951 0.976 0.806 0.925 5.43
106)	4-chlorotoluene	0.885 0.751 0.937 0.898 0.939 0.859 0.946 0.939 0.880 0.893 6.93
107)	1,3,5-trimethylbenzene	2.814 2.765 2.886 2.827 2.960 2.887 2.986 2.908 2.805 2.699 2.854 3.10
108)	tert-butylbenzene	0.543 0.461 0.566 0.571 0.594 0.583 0.605 0.584 0.549 0.562 7.62
109)	1,2,4-trimethylbenzene	2.712 2.862 2.870 2.833 2.990 2.790 2.993 2.970 2.699 2.795 2.851 3.76
110)	sec-butylbenzene	3.241 3.299 3.325 3.281 3.473 3.387 3.504 3.399 3.290 2.831 3.303 5.65
111)	1,3-dichlorobenzene	1.734 1.742 1.722 1.736 1.842 1.809 1.855 1.798 1.771 1.560 1.757 4.74
112)	p-isopropyltoluene	

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G

Initial Calibration Summary

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Job Number: JD7282

Sample: V2V2712-ICC2712

Account: UTC United Technologies Corporation

Lab FileID: 2V65570.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

113)	1,4-dichlorobenzene	2.686 1.802	2.528 1.800	2.854 1.803	2.846 1.762	2.995 1.858	2.810 1.905	3.005 1.883	2.948 1.852	2.704 1.859	2.187 1.835	2.756 1.836	9.05 2.38
114)	1,2-dichlorobenzene	1.654 1.654	1.596 1.596	1.684 1.658	1.658 1.752	1.637 1.783	1.745 1.745	1.725 1.725	1.467 1.467	1.670 1.670		5.53 5.53	
115)	benzyl chloride	1.701 1.701	1.527 1.527	1.665 1.877	1.877 2.017	1.517 1.517	2.068 1.848	1.848 1.629		1.761 1.761		11.45 11.45	
116)	n-butylbenzene	1.195 1.195	1.033 1.204	1.204 1.239	1.322 1.094	1.094 1.359	1.282 1.282	1.137 1.137		1.207 1.207		8.86 8.86	
117)	hexachloroethane	0.464 0.464	0.454 0.454	0.503 0.556	0.556 0.475	0.475 0.579	0.579 0.501	0.501 0.470		0.500 0.500		9.01 9.01	
118)	1,2-dibromo-3-chloropropane	0.236 0.236	0.244 0.277	0.302 0.302	0.208 0.308	0.308 0.282	0.282 0.242	0.242 0.242		0.262 0.262		13.46 13.46	
119)	nitrobenzene	*This compound does not meet initial calibration criteria*											
		0.027 0.027	0.043 0.043	0.052 0.052			0.059 0.059	0.037 0.037		0.044 0.044		29.18 29.18	
120)	1,3,5-trichlorobenzene	1.122 1.122	1.091 1.158	1.112 1.112	1.197 1.042	1.042 1.227	1.227 1.151	1.151 1.143	0.825 0.825	1.107 1.107		10.10 10.10	
121)	1,2,4-trichlorobenzene	0.908 0.908	0.939 0.939	0.931 0.931	1.021 0.820	0.820 1.051	1.051 0.984	0.984 0.912	0.912 0.912	0.946 0.946		7.67 7.67	
122)	hexachlorobutadiene	0.386 0.386	0.395 0.384	0.405 0.399	0.399 0.424	0.424 0.399	0.399 0.394	0.394 0.394	0.394 0.394	0.398 0.398		3.14 3.14	
123)	naphthalene	2.347 2.347	2.383 2.527	2.527 2.733	2.733 2.112	2.112 2.716	2.716 2.526	2.526 2.252	2.252 2.252	2.450 2.450		8.87 8.87	
124)	1,2,3-trichlorobenzene	0.760 0.760	0.775 0.788	0.847 0.704	0.704 0.846	0.846 0.821	0.821 0.751	0.751 0.751	0.751 0.751	0.786 0.786		6.32 6.32	
125)	2-ethylhexyl acrylate	0.320 0.320	0.399 0.471	0.471 0.540		0.540 0.369	0.369 0.369	0.369 0.369	0.369 0.369	0.420 0.420		20.64 20.64	
		----- Linear regression ----- Coefficient = 0.9910											
		Response Ratio = -0.00968 + 0.52173 *A											
126)	2-methylnaphthalene	0.395 0.395	0.354 0.482	0.482 0.512			0.448 0.427	0.427 0.366	0.366 0.366	0.426 0.426		13.83 13.83	
127)	bis(chloromethyl)ether										0.000 0.000	-1.00 -1.00	
128)	ethylenimine										0.000 0.000	-1.00 -1.00	

(##) = Out of Range ### Number of calibration levels exceeded format ###

M2V2712.M

Mon Mar 09 10:14:53 2020 RPT1

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Initial Calibration Verification

Job Number: JD7282

Sample: V2V2712-ICV2712

Account: UTC United Technologies Corporation

Lab FileID: 2V65575.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2V2712\2V65575.D Vial: 14
 Acq On : 7 Mar 2020 8:23 pm Operator: PrashanS
 Sample : ICV2712-50 Inst : MS2V
 Misc : MS41182,V2V2712,5,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V2712.M (RTE Integrator)
 Title : SW 846 Method 8260C, RxI-624 (30m x 0.25mm x 1.4um)
 Last Update : Mon Mar 09 10:12:58 2020
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	TrueValue	AvgRF	CCRF	%Dev	Area%	Dev(min)R.T.	
1 I	tert butyl alcohol-d9	500.00	1.000	1.000	0.0	102	0.00	2.94
2	ethanol	5000.00	0.155	0.144	7.1	100	0.00	2.38
3 M	tertiary butyl alcohol	250.00	1.927	1.744	9.5	98	0.00	2.99
4	1,4-dioxane	1250.00	0.168	0.169	-0.6	103	0.00	5.13
5 I	pentafluorobenzene	50.00	1.000	1.000	0.0	103	0.00	4.14
6	chlorodifluoromethane			-----NA-----				
7	dichlorodifluoromethane	50.00	0.566	0.640	-13.1	118	0.00	1.57
8	chloromethane	50.00	0.490	0.491	-0.2	110	0.00	1.71
9	vinyl chloride	50.00	0.545	0.534	2.0	99	0.00	1.80
10	bromomethane	50.00	0.278	0.360	-29.5	136	0.00	2.04
11	chloroethane	50.00	0.284	0.242	14.8	92	0.00	2.11
12	trichlorofluoromethane	50.00	0.812	0.835	-2.8	108	0.00	2.29
13	vinyl bromide	50.00	0.364	0.405	-11.3	115	0.00	2.25
14	1,3-butadiene	50.00	0.371	0.366	1.3	102	0.00	1.82
15	ethyl ether	50.00	0.233	0.232	0.4	104	0.00	2.47
16	2-chloropropane	50.00	0.685	0.609	11.1	94	0.00	2.56
17	acrolein	50.00	0.064	0.067	-4.7	109	0.00	2.56
18	freon 113	50.00	0.394	0.402	-2.0	104	0.00	2.64
19	1,1-dichloroethene	50.00	0.624	0.597	4.3	95	0.00	2.64
20	acetone	200.00	0.041	0.040	2.4	97	0.00	2.65
21	acetonitrile			-----NA-----				
22	iodomethane	50.00	0.233	0.335	-43.8#	102	0.00	2.76
23	carbon disulfide	50.00	0.984	1.106	-12.4	120	0.00	2.82
24	methylene chloride	50.00	0.451	0.436	3.3	104	0.00	2.96
25	methyl acetate	50.00	0.372	0.350	5.9	93	0.00	2.85
26	methyl tert butyl ether	50.00	1.290	1.288	0.2	102	0.00	3.13
27	trans-1,2-dichloroethene	50.00	0.422	0.426	-0.9	102	0.00	3.15
28	hexane	50.00	0.264	0.266	-0.8	101	0.00	3.32
29	di-isopropyl ether	50.00	1.257	1.210	3.7	100	0.00	3.43
30	ethyl tert-butyl ether	50.00	1.300	1.244	4.3	99	0.00	3.68
31 M	1,1-dichloroethane	50.00	0.729	0.750	-2.9	106	0.00	3.43
32	chloroprene	50.00	0.602	0.640	-6.3	107	0.00	3.49
33	acrylonitrile			-----NA-----				
34	vinyl acetate	50.00	0.092	0.090	2.2	102	0.00	3.41
35	ethyl acetate	50.00	0.078	0.077	1.3	99	0.00	3.80
36	2-butanone	200.00	0.060	0.062	-3.3	102	0.00	3.79
37	2,2-dichloropropane	50.00	0.691	0.654	5.4	101	0.00	3.83
38	cis-1,2-dichloroethene	50.00	0.501	0.485	3.2	101	0.00	3.81
39	propionitrile	500.00	0.061	0.071	-16.4	117	0.00	3.83
40	methyl acrylate	50.00	0.080	0.083	-3.8	102	0.00	3.84
41	bromochloromethane	50.00	0.252	0.273	-8.3	106	0.00	3.98

Initial Calibration Verification

Job Number: JD7282

Sample: V2V2712-ICV2712

Account: UTC United Technologies Corporation

Lab FileID: 2V65575.D

Project: ENSRLW: UTAS Plants 1/2 Facility, Rockford, IL

42	tetrahydrofuran	50.00	0.065	0.064	1.5	102	0.00	3.99
43	chloroform	50.00	0.857	0.846	1.3	106	0.00	4.03
44 S	dibromofluoromethane (s)	50.00	0.445	0.450	-1.1	103	0.00	4.14
45	methacrylonitrile	50.00	0.182	0.195	-7.1	105	0.00	3.94
46	1,1,1-trichloroethane	50.00	0.772	0.772	0.0	102	0.00	4.17
47	cyclohexane	50.00	0.570	0.578	-1.4	107	0.00	4.23
48	1,1-dichloropropene	50.00	0.609	0.615	-1.0	104	0.00	4.28
49	carbon tetrachloride	50.00	0.692	0.709	-2.5	104	0.00	4.29
50	isobutyl alcohol	500.00	0.016	0.017	-6.3	105	0.00	4.28
51	tert-amyl alcohol	250.00	0.024	0.024	0.0	99	0.00	4.37
52 I	1,4-difluorobenzene	50.00	1.000	1.000	0.0	104	0.00	4.70
53 S	1,2-dichloroethane-d4 (s)	50.00	0.302	0.308	-2.0	105	0.00	4.39
54	n-butyl alcohol	2500.00	0.013	0.013	0.0	98	0.00	4.76
55 M	benzene	50.00	1.216	1.190	2.1	105	0.00	4.43
56	tert-amyl methyl ether	50.00	0.995	0.909	8.6	97	0.00	4.49
57	iso-octane	50.00	0.691	0.671	2.9	104	0.00	4.49
58	heptane	50.00	0.156	0.146	6.4	100	0.00	4.60
59	isopropyl acetate	50.00	0.085	0.081	4.7	99	0.00	4.40
60	1,2-dichloroethane	50.00	0.490	0.471	3.9	105	0.00	4.45
61	trichloroethene	50.00	0.339	0.350	-3.2	104	0.00	4.89
62	ethyl acrylate	50.00	0.450	0.440	2.2	101	0.00	4.91
63	2-nitropropane	50.00	0.095	0.098	-3.2	110	0.00	5.43
64	2-chloroethyl vinyl ether	250.00	0.223	0.237	-6.3	106	0.00	5.47
65	methyl methacrylate	50.00	0.100	0.102	-2.0	103	0.00	5.09
66	1,2-dichloropropane	50.00	0.306	0.313	-2.3	107	0.00	5.09
67	methylcyclohexane	50.00	0.480	0.478	0.4	103	0.00	5.08
68	dibromomethane	50.00	0.238	0.243	-2.1	104	0.00	5.15
69	bromodichloromethane	50.00	0.461	0.467	-1.3	102	0.00	5.27
70	epichlorohydrin	250.00	0.039	0.038	2.6	100	0.00	5.52
71	cis-1,3-dichloropropene	50.00	0.506	0.522	-3.2	104	0.00	5.62
72	4-methyl-2-pentanone	200.00	0.135	0.139	-3.0	101	0.00	5.72
73	3-methyl-1-butanol	1000.00	0.012	0.013	-8.3	100	0.00	5.74
74 I	chlorobenzene-d5	50.00	1.000	1.000	0.0	105	0.00	7.09
75 S	toluene-d8 (s)	50.00	1.275	1.243	2.5	103	0.00	5.84
76	toluene	50.00	0.956	0.935	2.2	106	0.00	5.90
77	ethyl methacrylate	50.00	0.503	0.522	-3.8	106	0.00	6.09
78	trans-1,3-dichloropropene	50.00	0.574	0.605	-5.4	108	0.00	6.07
79	1,1,2-trichloroethane	50.00	0.311	0.311	0.0	105	0.00	6.24
80	2-hexanone	200.00	0.161	0.165	-2.5	100	0.00	6.41
81	tetrachloroethene	-----NA-----						
82	1,3-dichloropropane	50.00	0.569	0.577	-1.4	106	0.00	6.38
83	butyl acetate	50.00	0.262	0.268	-2.3	106	0.00	6.50
84	dibromochloromethane	50.00	0.469	0.512	-9.2	109	0.00	6.57
85	1,2-dibromoethane	50.00	0.454	0.477	-5.1	105	0.00	6.68
86	n-butyl ether	50.00	1.420	1.397	1.6	104	0.00	7.17
87	chlorobenzene	50.00	1.129	1.106	2.0	106	0.00	7.12
88	1,1,1,2-tetrachloroethane	50.00	0.414	0.443	-7.0	108	0.00	7.19
89	ethylbenzene	50.00	1.794	1.774	1.1	105	0.00	7.19
90	m,p-xylene	100.00	0.685	0.694	-1.3	105	0.00	7.31
91	o-xylene	50.00	1.393	1.409	-1.1	106	0.00	7.67
92	styrene	50.00	1.107	1.165	-5.2	106	0.00	7.68
93	butyl acrylate	50.00	0.331	0.349	-5.4	105	0.00	7.59
94	n-amyl acetate	50.00	0.270	0.269	0.4	100	0.00	7.80
95	bromoform	50.00	0.342	0.385	-12.6	112	0.00	7.86
96	isopropylbenzene	50.00	1.678	1.727	-2.9	106	0.00	8.01
97	cis-1,4-dichloro-2-butene	50.00	0.201	0.214	-6.5	104	0.00	8.05
98 I	1,4-dichlorobenzene-d4	50.00	1.000	1.000	0.0	104	0.00	9.29

6.7.2
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Initial Calibration Verification**Job Number:** JD7282**Sample:** V2V2712-ICV2712**Account:** UTC United Technologies Corporation**Lab FileID:** 2V65575.D**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99	S	4-bromofluorobenzene (s)	50.00	0.921	0.915	0.7	105	0.00	8.17
100		bromobenzene	50.00	1.079	1.050	2.7	106	0.00	8.32
101		1,1,2,2-tetrachloroethane	50.00	1.106	1.072	3.1	103	0.00	8.29
102		trans-1,4-dichloro-2-bute	50.00	0.286	0.307	-7.3	110	0.00	8.33
103		1,2,3-trichloropropane	50.00	0.334	0.324	3.0	103	0.00	8.35
104		n-propylbenzene	50.00	4.011	4.016	-0.1	107	0.00	8.40
105		2-chlorotoluene	50.00	0.925	0.906	2.1	106	0.00	8.49
106		4-chlorotoluene	50.00	0.893	0.928	-3.9	108	0.00	8.61
107		1,3,5-trimethylbenzene	50.00	2.854	2.863	-0.3	106	0.00	8.57
108		tert-butylbenzene	50.00	0.562	0.647	-15.1	118	0.00	8.88
109		1,2,4-trimethylbenzene	50.00	2.851	2.913	-2.2	107	0.00	8.94
110		sec-butylbenzene	50.00	3.303	3.346	-1.3	106	0.00	9.10
111		1,3-dichlorobenzene	50.00	1.757	1.804	-2.7	108	0.00	9.22
112		p-isopropyltoluene	50.00	2.756	2.928	-6.2	107	0.00	9.24
113		1,4-dichlorobenzene	50.00	1.836	1.817	1.0	107	0.00	9.32
114		1,2-dichlorobenzene	50.00	1.670	1.705	-2.1	107	0.00	9.67
115		benzyl chloride	50.00	1.761	1.472	16.4	82	0.00	9.42
116		n-butylbenzene	50.00	1.207	1.250	-3.6	105	0.00	9.65
117		hexachloroethane	50.00	0.500	0.523	-4.6	108	0.00	9.94
118		1,2-dibromo-3-chloropropene	50.00	0.262	0.262	0.0	99	0.00	10.44
119		nitrobenzene	50.00	0.044	0.042	4.5	103	0.00	10.63
120		1,3,5-trichlorobenzene	50.00	1.107	1.152	-4.1	108	0.00	10.63
121		1,2,4-trichlorobenzene	50.00	0.946	0.950	-0.4	106	0.00	11.24
122		hexachlorobutadiene	50.00	0.398	0.378	5.0	103	0.00	11.37
123		naphthalene	50.00	2.450	2.500	-2.0	103	0.00	11.48
124		1,2,3-trichlorobenzene	50.00	0.786	0.775	1.4	102	0.00	11.69

	-----TrueValue	CC-RF	Calc.	% Drift	-----R.T.
125	2-ethylhexyl acrylate	10.00	0.081	8.697	13.0 106 0.00 11.41

	-----TrueValue	AvgRF	CCRF	% Dev	-----R.T.
126	2-methylnaphthalene	25.00	0.426	0.437	-2.6 95 0.00 12.53
127	bis(chloromethyl)ether			-----NA-----	
128	ethylenimine			-----NA-----	

(#= Out of Range
2V65570.D M2V2712.MSPCC's out = 0 CCC's out = 0
Mon Mar 09 10:14:41 2020 RPT16.7.2
6

Initial Calibration Verification

Job Number: JD7282

Sample: V2V2712-ICV2712

Account: UTC United Technologies Corporation

Lab FileID: 2V65576.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2V2712\2V65576.D Vial: 15
 Acq On : 7 Mar 2020 8:49 pm Operator: PrashanS
 Sample : ICV2712-50 Inst : MS2V
 Misc : MS41182,V2V2712,5,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V2712.M (RTE Integrator)
 Title : SW 846 Method 8260C, RxI-624 (30m x 0.25mm x 1.4um)
 Last Update : Mon Mar 09 10:12:58 2020
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	TrueValue	AvgRF	CCRF	%Dev	Area%	Dev(min)R.T.
1 I	tert butyl alcohol-d9	500.00	1.000	1.000	0.0	99	0.00
2	ethanol		-----	NA-----			
3 M	tertiary butyl alcohol		-----	NA-----			
4	1,4-dioxane		-----	NA-----			
5 I	pentafluorobenzene	50.00	1.000	1.000	0.0	99	0.00
6	chlorodifluoromethane		-----	NA-----			
7	dichlorodifluoromethane		-----	NA-----			
8	chloromethane		-----	NA-----			
9	viny chloride		-----	NA-----			
10	bromomethane		-----	NA-----			
11	chloroethane		-----	NA-----			
12	trichlorofluoromethane		-----	NA-----			
13	vinyl bromide		-----	NA-----			
14	1,3-butadiene		-----	NA-----			
15	ethyl ether		-----	NA-----			
16	2-chloropropane		-----	NA-----			
17	acrolein		-----	NA-----			
18	freon 113		-----	NA-----			
19	1,1-dichloroethene		-----	NA-----			
20	acetone		-----	NA-----			
21	acetonitrile	500.00	0.060	0.058	3.3	99	0.00
22	iodomethane		-----	NA-----			
23	carbon disulfide		-----	NA-----			
24	methylene chloride		-----	NA-----			
25	methyl acetate		-----	NA-----			
26	methyl tert butyl ether		-----	NA-----			
27	trans-1,2-dichloroethene		-----	NA-----			
28	hexane		-----	NA-----			
29	di-isopropyl ether		-----	NA-----			
30	ethyl tert-butyl ether		-----	NA-----			
31 M	1,1-dichloroethane		-----	NA-----			
32	chloroprene		-----	NA-----			
33	acrylonitrile	50.00	0.167	0.161	3.6	94	0.00
34	vinyl acetate		-----	NA-----			
35	ethyl acetate		-----	NA-----			
36	2-butanone		-----	NA-----			
37	2,2-dichloropropane		-----	NA-----			
38	cis-1,2-dichloroethene		-----	NA-----			
39	propionitrile		-----	NA-----			
40	methyl acrylate		-----	NA-----			
41	bromochloromethane		-----	NA-----			

Initial Calibration Verification

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2V2712-ICV2712
Lab FileID: 2V65576.D

42	tetrahydrofuran		-----	-NA-----						
43	chloroform		-----	-NA-----						
44 S	dibromofluoromethane (s)	50.00	0.445	0.447	-0.4	99	0.00	4.14		
45	methacrylonitrile		-----	-NA-----						
46	1,1,1-trichloroethane		-----	-NA-----						
47	cyclohexane		-----	-NA-----						
48	1,1-dichloropropene		-----	-NA-----						
49	carbon tetrachloride		-----	-NA-----						
50	isobutyl alcohol		-----	-NA-----						
51	tert-amyl alcohol		-----	-NA-----						
52 I	1,4-difluorobenzene	50.00	1.000	1.000	0.0	99	0.00	4.70		
53 S	1,2-dichloroethane-d4 (s)	50.00	0.302	0.303	-0.3	98	0.00	4.39		
54	n-butyl alcohol		-----	-NA-----						
55 M	benzene		-----	-NA-----						
56	tert-amyl methyl ether		-----	-NA-----						
57	iso-octane		-----	-NA-----						
58	heptane		-----	-NA-----						
59	isopropyl acetate		-----	-NA-----						
60	1,2-dichloroethane		-----	-NA-----						
61	trichloroethene		-----	-NA-----						
62	ethyl acrylate		-----	-NA-----						
63	2-nitropropane		-----	-NA-----						
64	2-chloroethyl vinyl ether		-----	-NA-----						
65	methyl methacrylate		-----	-NA-----						
66	1,2-dichloropropane		-----	-NA-----						
67	methylcyclohexane		-----	-NA-----						
68	dibromomethane		-----	-NA-----						
69	bromodichloromethane		-----	-NA-----						
70	epichlorohydrin		-----	-NA-----						
71	cis-1,3-dichloropropene		-----	-NA-----						
72	4-methyl-2-pentanone		-----	-NA-----						
73	3-methyl-1-butanol		-----	-NA-----						
74 I	chlorobenzene-d5	50.00	1.000	1.000	0.0	96	0.00	7.09		
75 S	toluene-d8 (s)	50.00	1.275	1.280	-0.4	98	0.00	5.84		
76	toluene		-----	-NA-----						
77	ethyl methacrylate		-----	-NA-----						
78	trans-1,3-dichloropropene		-----	-NA-----						
79	1,1,2-trichloroethane		-----	-NA-----						
80	2-hexanone		-----	-NA-----						
81	tetrachloroethene	50.00	0.366	0.384	-4.9	97	0.00	6.34		
82	1,3-dichloropropane		-----	-NA-----						
83	butyl acetate		-----	-NA-----						
84	dibromochloromethane		-----	-NA-----						
85	1,2-dibromoethane		-----	-NA-----						
86	n-butyl ether		-----	-NA-----						
87	chlorobenzene		-----	-NA-----						
88	1,1,1,2-tetrachloroethane		-----	-NA-----						
89	ethylbenzene		-----	-NA-----						
90	m,p-xylene		-----	-NA-----						
91	o-xylene		-----	-NA-----						
92	styrene		-----	-NA-----						
93	butyl acrylate		-----	-NA-----						
94	n-amyl acetate		-----	-NA-----						
95	bromoform		-----	-NA-----						
96	isopropylbenzene		-----	-NA-----						
97	cis-1,4-dichloro-2-butene		-----	-NA-----						
98 I	1,4-dichlorobenzene-d4	50.00	1.000	1.000	0.0	90	0.00	9.30		

6.7.3
6

Initial Calibration Verification

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2V2712-ICV2712
Lab FileID: 2V65576.D

99	S	4-bromofluorobenzene (s)	50.00	0.921	0.920	0.1	91	0.00	8.17
100		bromobenzene		-----	-NA-----				
101		1,1,2,2-tetrachloroethane		-----	-NA-----				
102		trans-1,4-dichloro-2-butene		-----	-NA-----				
103		1,2,3-trichloropropane		-----	-NA-----				
104		n-propylbenzene		-----	-NA-----				
105		2-chlorotoluene		-----	-NA-----				
106		4-chlorotoluene		-----	-NA-----				
107		1,3,5-trimethylbenzene		-----	-NA-----				
108		tert-butylbenzene		-----	-NA-----				
109		1,2,4-trimethylbenzene		-----	-NA-----				
110		sec-butylbenzene		-----	-NA-----				
111		1,3-dichlorobenzene		-----	-NA-----				
112		p-isopropyltoluene		-----	-NA-----				
113		1,4-dichlorobenzene		-----	-NA-----				
114		1,2-dichlorobenzene		-----	-NA-----				
115		benzyl chloride		-----	-NA-----				
116		n-butylbenzene		-----	-NA-----				
117		hexachloroethane		-----	-NA-----				
118		1,2-dibromo-3-chloropropene		-----	-NA-----				
119		nitrobenzene		-----	-NA-----				
120		1,3,5-trichlorobenzene		-----	-NA-----				
121		1,2,4-trichlorobenzene		-----	-NA-----				
122		hexachlorobutadiene		-----	-NA-----				
123		naphthalene		-----	-NA-----				
124		1,2,3-trichlorobenzene		-----	-NA-----				
125		2-ethylhexyl acrylate		-----	-NA-----				
126		2-methylnaphthalene		-----	-NA-----				
127		bis(chloromethyl)ether		-----	-NA-----				
128		ethylenimine		-----	-NA-----				

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

2V65570.D M2V2712.M

Mon Mar 09 10:14:43 2020 RPT1

Continuing Calibration Summary

Job Number: JD7282

Sample: V2V2800-CC2712

Account: UTC United Technologies Corporation

Lab FileID: 2V67666.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...-20\v2v2800\2v67666.d Vial: 2
 Acq On : 21 May 2020 8:30 am Operator: ROBERTS
 Sample : CC2712-20 Inst : MS2V
 Misc : MS43230,V2V2800,5,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V2712.M (RTE Integrator)
 Title : SW 846 Method 8260C, Rx-624 (30m x 0.25mm x 1.4um)
 Last Update : Mon Mar 09 10:12:58 2020
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	100	0.00	2.93
2	ethanol	0.155	0.159	-2.6	100	0.00	2.38
3 M	tertiary butyl alcohol	1.927	1.677	13.0	87	0.00	2.99
4	1,4-dioxane	0.168	0.172	-2.4	99	0.00	5.13
5 I	pentafluorobenzene	1.000	1.000	0.0	98	0.00	4.14
6	chlorodifluoromethane			-----NA-----			
7	dichlorodifluoromethane	0.566	0.652	-15.2	115	0.00	1.57
8	chloromethane	0.490	0.528	-7.8	111	0.00	1.71
9	vinyl chloride	0.545	0.533	2.2	95	0.00	1.80
10	bromomethane	0.278	0.223	19.8	82	0.00	2.04
11	chloroethane	0.284	0.280	1.4	105	0.00	2.12
12	trichlorofluoromethane	0.812	0.824	-1.5	100	0.00	2.29
13	vinyl bromide	0.364	0.342	6.0	94	0.00	2.25
14	1,3-butadiene	0.371	0.383	-3.2	105	0.00	1.82
15	ethyl ether	0.233	0.267	-14.6	112	0.00	2.47
16	2-chloropropane			-----NA-----			
17	acrolein	0.064	0.078	-21.9#	117	0.00	2.56
18	freon 113	0.394	0.399	-1.3	99	0.00	2.64
19	1,1-dichloroethene	0.624	0.682	-9.3	105	0.00	2.64
20	acetone	0.041	0.046	-12.2	106	0.00	2.65
21	acetonitrile	0.060	0.064	-6.7	106	0.00	2.83
22	iodomethane	0.233	0.112	51.9#	49#	0.00	2.75
23	carbon disulfide	0.984	1.056	-7.3	109	0.00	2.81
24	methylene chloride	0.451	0.502	-11.3	113	0.00	2.96
25	methyl acetate	0.372	0.393	-5.6	104	0.00	2.85
26	methyl tert butyl ether	1.290	1.436	-11.3	107	0.00	3.13
27	trans-1,2-dichloroethene	0.422	0.485	-14.9	112	0.00	3.15
28	hexane	0.264	0.275	-4.2	100	0.00	3.32
29	di-isopropyl ether	1.257	1.358	-8.0	104	0.00	3.43
30	ethyl tert-butyl ether	1.300	1.405	-8.1	105	0.00	3.67
31 M	1,1-dichloroethane	0.729	0.793	-8.8	102	0.00	3.43
32	chloroprene	0.602	0.617	-2.5	100	0.00	3.48
33	acrylonitrile	0.167	0.183	-9.6	107	0.00	3.10
34	vinyl acetate	0.092	0.105	-14.1	110	0.00	3.41
35	ethyl acetate	0.078	0.080	-2.6	96	0.00	3.80
36	2-butanone	0.060	0.061	-1.7	95	0.00	3.79
37	2,2-dichloropropane	0.691	0.696	-0.7	98	0.00	3.82
38	cis-1,2-dichloroethene	0.501	0.522	-4.2	103	0.00	3.81
39	propionitrile	0.061	0.069	-13.1	107	0.00	3.82
40	methyl acrylate	0.080	0.082	-2.5	101	0.00	3.84
41	bromochloromethane	0.252	0.281	-11.5	103	0.00	3.98

Continuing Calibration Summary

Page 2 of 3

Job Number: JD7282

Sample: V2V2800-CC2712

Account: UTC United Technologies Corporation

Lab FileID: 2V67666.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

42	tetrahydrofuran	0.065	0.067	-3.1	100	0.00	3.99
43	chloroform	0.857	0.866	-1.1	101	0.00	4.03
44 S	dibromofluoromethane (s)	0.445	0.454	-2.0	100	0.00	4.14
45	methacrylonitrile	0.182	0.189	-3.8	96	0.00	3.94
46	1,1,1-trichloroethane	0.772	0.802	-3.9	102	0.00	4.17
47	cyclohexane	0.570	0.578	-1.4	99	0.00	4.23
48	1,1-dichloropropene	0.609	0.607	0.3	98	0.00	4.28
49	carbon tetrachloride	0.692	0.685	1.0	96	0.00	4.29
50	isobutyl alcohol	0.016	0.015	6.3	87	0.00	4.28
51	tert-amyl alcohol	0.024	0.023	4.2	93	0.00	4.37
52 I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	4.70
53 S	1,2-dichloroethane-d4 (s)	0.302	0.293	3.0	103	0.00	4.39
54	n-butyl alcohol	0.013	0.012	7.7	97	0.00	4.76
55 M	benzene	1.216	1.266	-4.1	110	0.00	4.43
56	tert-amyl methyl ether	0.995	1.029	-3.4	107	0.00	4.49
57	iso-octane	0.691	0.665	3.8	98	0.00	4.49
58	heptane	0.156	0.153	1.9	101	0.00	4.60
59	isopropyl acetate	0.085	0.080	5.9	102	0.00	4.40
60	1,2-dichloroethane	0.490	0.458	6.5	99	0.00	4.45
61	trichloroethene	0.339	0.351	-3.5	106	0.00	4.89
62	ethyl acrylate	0.450	0.451	-0.2	101	0.00	4.91
63	2-nitropropane	0.095	0.084	11.6	97	0.00	5.43
64	2-chloroethyl vinyl ether	0.223	0.217	2.7	97	0.00	5.47
65	methyl methacrylate	0.100	0.104	-4.0	105	0.00	5.09
66	1,2-dichloropropane	0.306	0.319	-4.2	107	0.00	5.09
67	methylcyclohexane	0.480	0.435	9.4	93	0.00	5.08
68	dibromomethane	0.238	0.241	-1.3	103	0.00	5.15
69	bromodichloromethane	0.461	0.488	-5.9	108	0.00	5.27
70	epichlorohydrin	0.039	0.038	2.6	101	0.00	5.52
71	cis-1,3-dichloropropene	0.506	0.520	-2.8	103	0.00	5.62
72	4-methyl-2-pentanone	0.135	0.137	-1.5	101	0.00	5.71
73	3-methyl-1-butanol	0.012	0.011	8.3	86	0.00	5.74
74 I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	7.09
75 S	toluene-d8 (s)	1.275	1.172	8.1	99	0.00	5.84
76	toluene	0.956	0.897	6.2	102	0.00	5.90
77	ethyl methacrylate	0.503	0.495	1.6	103	0.00	6.09
78	trans-1,3-dichloropropene	0.574	0.560	2.4	103	0.00	6.07
79	1,1,2-trichloroethane	0.311	0.296	4.8	99	0.00	6.23
80	2-hexanone	0.161	0.158	1.9	100	0.00	6.40
81	tetrachloroethene	0.366	0.348	4.9	97	0.00	6.33
82	1,3-dichloropropane	0.569	0.549	3.5	100	0.00	6.38
83	butyl acetate	0.262	0.255	2.7	100	0.00	6.49
84	dibromochloromethane	0.469	0.463	1.3	104	0.00	6.57
85	1,2-dibromoethane	0.454	0.483	-6.4	110	0.00	6.69
86	n-butyl ether	1.420	1.384	2.5	103	0.00	7.17
87	chlorobenzene	1.129	1.090	3.5	106	0.00	7.12
88	1,1,1,2-tetrachloroethane	0.414	0.411	0.7	101	0.00	7.18
89	ethylbenzene	1.794	1.780	0.8	107	0.00	7.19
90	m,p-xylene	0.685	0.677	1.2	105	0.00	7.31
91	o-xylene	1.393	1.375	1.3	106	0.00	7.67
92	styrene	1.107	1.136	-2.6	107	0.00	7.68
93	butyl acrylate	0.331	0.341	-3.0	107	0.00	7.59
94	n-amyl acetate	0.270	0.275	-1.9	106	0.00	7.80
95	bromoform	0.342	0.342	0.0	106	0.00	7.85
96	isopropylbenzene	1.678	1.619	3.5	102	0.00	8.00
97	cis-1,4-dichloro-2-butene	0.201	0.163	18.9	86	0.00	8.05
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	106	0.00	9.29

6.7.4
6

Continuing Calibration Summary

Job Number: JD7282

Sample: V2V2800-CC2712

Account: UTC United Technologies Corporation

Lab FileID: 2V67666.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99	S	4-bromofluorobenzene (s)	0.921	0.959	-4.1	110	0.00	8.17
100		bromobenzene	1.079	1.084	-0.5	106	0.00	8.32
101		1,1,2,2-tetrachloroethane	1.106	1.118	-1.1	106	0.00	8.28
102		trans-1,4-dichloro-2-bute	0.286	0.247	13.6	90	0.00	8.32
103		1,2,3-trichloropropane	0.334	0.333	0.3	102	0.00	8.34
104		n-propylbenzene	4.011	4.026	-0.4	104	0.00	8.40
105		2-chlorotoluene	0.925	0.901	2.6	100	0.00	8.49
106		4-chlorotoluene	0.893	0.917	-2.7	104	0.00	8.61
107		1,3,5-trimethylbenzene	2.854	2.878	-0.8	105	0.00	8.57
108		tert-butylbenzene	0.562	0.549	2.3	100	0.00	8.88
109		1,2,4-trimethylbenzene	2.851	2.913	-2.2	104	0.00	8.93
110		sec-butylbenzene	3.303	3.113	5.8	97	0.00	9.09
111		1,3-dichlorobenzene	1.757	1.735	1.3	102	0.00	9.22
112		p-isopropyltoluene	2.756	2.690	2.4	97	0.00	9.24
113		1,4-dichlorobenzene	1.836	1.620	11.8	93	0.00	9.31
114		1,2-dichlorobenzene	1.670	1.629	2.5	99	0.00	9.67
115		benzyl chloride	1.761	1.747	0.8	100	0.00	9.42
116		n-butylbenzene	1.207	1.162	3.7	96	0.00	9.64
117		hexachloroethane	0.500	0.414	17.2	88	0.00	9.94
118		1,2-dibromo-3-chloropropane	0.262	0.255	2.7	96	0.00	10.43
119		nitrobenzene	0.044	0.053	-20.5#	150	0.00	10.62
120		1,3,5-trichlorobenzene	1.107	1.080	2.4	100	0.00	10.63
121		1,2,4-trichlorobenzene	0.946	0.898	5.1	97	0.00	11.23
122		hexachlorobutadiene	0.398	0.347	12.8	92	0.00	11.37
123		naphthalene	2.450	2.285	6.7	96	0.00	11.48
124		1,2,3-trichlorobenzene	0.786	0.715	9.0	92	0.00	11.69
-----			True	Calc.	% Drift	-----		
125		2-ethylhexyl acrylate	4.000	2.774	30.6#	69	0.00	11.41
-----			AvgRF	CCRF	% Dev	-----		
126		2-methylnaphthalene	0.426	0.332	22.1#	83	-0.01	12.53
127		bis(chloromethyl)ether			-----NA-----			
128		ethylenimine			-----NA-----			

(#= Out of Range
2V65569.D M2V2712.MSPCC's out = 0 CCC's out = 0
Thu May 21 21:37:46 20206.7.4
6

Initial Calibration Summary

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: VA9958-ICC9958
Lab FileID: A256236.D

Page 1 of 5

Response Factor Report MSA

Method : C:\MSDCHEM\1\METHODS\MA9958.M (RTE Integrator)

Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um

Last Update : Wed Feb 05 10:36:55 2020

Response via : Initial Calibration

Calibration Files

4	=A256233.D	2	=A256232.D	20	=A256235.D	50	=A256236.D
100	=A256237.D	1	=A256231.D	200	=A256238.D	0.5	=A256230.D
8	=A256234.D	0.2	=A256229.D	=	=		

Compound

	4	2	20	50	100	1	200	0.5	8	0.2	Avg	%RSD
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1) I Tert Butyl Alcohol-d9 -----ISTD-----

2) ethanol 0.000# -1.00

3) tertiary butyl alcohol 1.122 1.464 1.188 1.180 1.258 1.111 1.258 1.158 1.217 9.33

4) 1,4-dioxane 0.075 0.100 0.075 0.078 0.088 0.089 0.075 0.083 0.083 11.52

5) I pentafluorobenzene -----ISTD-----

6) chlorodifluoromethane *This compound fails Initial Calibration criteria* 1.309 1.508 1.246 1.276 1.286 1.237 1.101 1.259 1.267 1.276 8.23

7) dichlorodifluoromethane 1.426 1.185 1.387 1.372 1.364 1.232 1.412 1.340 6.94

8) chloromethane 2.134 2.065 1.952 1.861 1.782 2.117 1.576 2.068 1.944 10.00

9) vinyl chloride 2.067 1.992 1.968 1.911 1.873 1.980 1.684 2.276 2.100 1.834 1.969 8.18

10) 1,3-butadiene 1.007 1.102 0.940 0.931 1.000 0.954 0.864 0.900 0.990 0.965 7.21

11) bromomethane 1.232 1.228 1.223 1.287 1.323 1.300 0.946 1.240 1.222 9.65

12) chloroethane 0.780 0.771 0.765 0.792 0.895 0.708 0.816 0.769 0.787 6.75

13) vinyl bromide 0.724 0.709 0.723 0.714 0.742 0.704 0.701 0.732 0.719 1.99

14) trichlorofluoromethane 1.227 1.134 1.181 1.184 1.233 0.998 1.161 1.234 1.169 6.68

15) ethyl ether 0.311 0.398 0.341 0.344 0.375 0.284 0.342 0.358 0.344 10.20

16) acrolein 0.132 0.169 0.172 0.192 0.172 0.155 0.165 0.165 12.32

17) freon 113 0.491 0.501 0.484 0.507 0.563 0.526 0.485 0.508 5.57

18) 1,1-dichloroethene 0.594 0.660 0.583 0.580 0.670 0.482 0.626 0.528 0.573 0.588 10.16

19) acetone 0.296 0.367 0.306 0.305 0.334 0.305 0.297 0.304 0.314 7.70

20) acetonitrile 0.145 0.185 0.146 0.146 0.156 0.135 0.137 0.143 0.149 10.60

21) iodomethane *This compound fails Initial Calibration criteria* 0.839 0.947 0.830 0.842 0.960 0.887 0.839 0.878 6.29

22) carbon disulfide 1.766 2.068 1.782 1.778 2.023 1.922 1.815 1.976 1.752 1.718 1.860 6.77

23) methylene chloride

6.7.5

6

Initial Calibration Summary**Job Number:** JD7282**Sample:** VA9958-ICC9958**Account:** UTC United Technologies Corporation**Lab FileID:** A256236.D**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

24)	methyl acetate	0.702 0.802 0.685 0.674 0.763 0.674 0.697 0.643 0.667 0.659 0.770 0.669 0.668 0.726 0.565 0.645	0.676	0.701	7.17	0.672 8.89
25)	methyl tert butyl ether	1.830 2.251 1.829 1.838 1.988 1.787 1.779 1.751 1.845		1.878	8.27	
26)	trans-1,2-dichloroethene	0.537 0.622 0.536 0.546 0.608 0.539 0.559 0.556 0.561		0.563	5.56	
27)	hexane	0.737 0.667 0.720 0.728 0.774 0.535 0.711	0.736	0.701	10.46	
28)	di-isopropyl ether	2.210 2.446 2.086 2.160 2.338 2.057 2.151 1.999 2.115		2.174	6.47	
29)	ethyl tert-butyl ether	1.822 2.169 1.832 1.880 2.001 1.767 1.793 1.828 1.916 1.768	1.878		6.67	
30)	2-butanone	0.105 0.129 0.121 0.121 0.135 0.086 0.122	0.108	0.116	13.36	
31)	1,1-dichloroethane	1.067 1.216 1.028 1.065 1.156 1.004 1.071 0.997 1.068		1.075	6.59	
32)	chloroprene	0.857 0.965 0.832 0.875 0.950 0.810 0.877 0.774 0.859		0.866	7.05	
33)	acrylonitrile	0.274 0.321 0.319 0.324 0.355	0.322	0.299	0.316	7.94
34)	vinyl acetate	0.116 0.115 0.135 0.137 0.148	0.140	0.134	0.132	9.33
35)	ethyl acetate	0.121 0.141 0.148 0.162	0.149	0.135	0.143	9.77
36)	2,2-dichloropropane	0.965 1.116 0.942 0.975 1.056 0.950 0.962 1.001 0.957 0.819	0.974		7.94	
37)	cis-1,2-dichloroethene	0.645 0.732 0.630 0.663 0.727 0.656 0.687 0.535 0.632		0.656	8.99	
38)	methyl acrylate	0.087 0.124 0.130 0.144	0.133	0.112	0.121	16.40
39)	propionitrile	0.118 0.156 0.133 0.135 0.150	0.134	0.129	0.136	9.51
40)	bromochloromethane	0.277 0.341 0.291 0.315 0.349 0.258 0.331	0.310	0.309	10.29	
41)	tetrahydrofuran	0.277 0.350 0.297 0.302 0.332 0.295 0.302 0.255 0.293		0.300	9.24	
42)	chloroform	1.017 1.209 0.980 1.016 1.089 1.085 1.024 1.077 1.016 0.919	1.043		7.44	
43)	tert-butyl formate	0.539 0.654 0.582 0.601 0.653 0.553 0.593 0.491 0.582		0.583	8.96	
44)	dibromofluoromethane (s)	0.553 0.537 0.551 0.550 0.559 0.537 0.540 0.545 0.555 0.549	0.548		1.38	
45)	methacrylonitrile	0.284 0.361 0.319 0.328 0.365	0.334	0.304	0.328	8.85
46)	cyclohexane	0.996 0.929 1.002 1.014 1.087 0.766 1.030	1.004	0.979	9.82	
47)	1,1,1-trichloroethane	0.955 1.073 0.976 1.013 1.098 0.976 1.027 0.870 0.968		0.995	6.82	
48)	iso-butyl alcohol	0.106 0.136 0.108 0.110 0.123 0.107 0.112 0.109 0.108		0.113	8.63	
49)	1,1-dichloropropene	0.742 0.858 0.774 0.782 0.845 0.774 0.799 0.820 0.767		0.796	4.81	
50)	carbon tetrachloride	0.762 0.859 0.802 0.836 0.926 0.707 0.874	0.790	0.820	8.41	
51)	tert-amyl alcohol	0.094 0.119 0.102 0.100 0.113	0.098	0.097	0.103	9.00
52)	I 1,4-difluorobenzene	-----ISTD-----				
53)	1,2-dichloroethane-d4 (s)					

6.7.5
6

Initial Calibration Summary

Page 3 of 5

Job Number: JD7282

Sample: VA9958-ICC9958

Account: UTC United Technologies Corporation

Lab FileID: A256236.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

54)	benzene	0.399 0.389 0.393 0.385 0.388 0.387 0.366 0.394 0.402 0.394 0.390 2.55
55)	iso-octane	1.296 1.546 1.336 1.348 1.444 1.375 1.353 1.402 1.335 1.286 1.372 5.59
56)	tert-amyl methyl ether	1.054 0.910 1.095 1.157 1.272 1.198 1.048 1.105 1.111 1.105 10.64
57)	heptane	1.098 1.278 1.092 1.096 1.162 1.086 1.045 1.042 1.100 1.111 6.44
58)	isopropyl acetate	0.215 0.208 0.232 0.236 0.248 0.190 0.235 0.222 0.223 0.223 8.28
59)	1,2-dichloroethane	0.087 0.101 0.104 0.106 0.114 0.107 0.099 0.103 0.103 8.21
60)	n-butyl alcohol	0.507 0.595 0.492 0.483 0.516 0.575 0.483 0.478 0.516 0.516 8.64
61)	ethyl acrylate	0.018 0.023 0.020 0.019 0.022 0.020 0.018 0.020 0.020 9.87
62)	trichloroethene	0.294 0.364 0.311 0.323 0.351 0.302 0.343 0.332 0.310 0.326 7.26
63)	2-nitropropane	0.178 0.222 0.183 0.183 0.208 0.197 0.178 0.193 0.193 8.82
64)	methylcyclohexane	0.576 0.568 0.571 0.622 0.685 0.661 0.584 0.609 0.609 7.77
65)	2-chloroethyl vinyl ether	0.199 0.225 0.210 0.216 0.249 0.174 0.240 0.209 0.215 10.87
66)	methyl methacrylate	0.087 0.096 0.095 0.102 0.117 0.112 0.095 0.101 0.101 10.51
67)	1,2-dichloropropane	0.329 0.399 0.341 0.357 0.388 0.323 0.374 0.313 0.342 0.352 8.50
68)	dibromomethane	0.216 0.271 0.221 0.226 0.245 0.214 0.236 0.223 0.232 0.232 8.25
69)	bromodichloromethane	0.440 0.512 0.450 0.460 0.494 0.442 0.476 0.393 0.442 0.404 0.451 8.13
70)	epichlorohydrin	0.054 0.067 0.057 0.056 0.065 0.049 0.059 0.056 0.058 0.058 10.25
71)	cis-1,3-dichloropropene	0.511 0.603 0.535 0.552 0.602 0.530 0.574 0.473 0.520 0.490 0.539 8.19
72)	4-methyl-2-pentanone	0.206 0.263 0.227 0.233 0.270 0.203 0.256 0.217 0.234 0.234 11.07
73)	3-methyl-1-butanol	0.040 0.051 0.046 0.046 0.055 0.051 0.042 0.047 0.047 10.97
74)	I chlorobenzene-d5	-----ISTD-----
75)	toluene-d8 (s)	1.423 1.463 1.449 1.465 1.338 1.434 1.296 1.409 1.377 1.489 1.414 4.31
76)	toluene	0.875 1.122 0.942 0.966 0.953 0.942 0.906 0.893 0.874 0.916 0.939 7.64
77)	trans-1,3-dichloropropene	0.538 0.685 0.583 0.596 0.607 0.537 0.575 0.536 0.537 0.559 0.575 8.11
78)	ethyl methacrylate	0.538 0.662 0.569 0.568 0.602 0.514 0.570 0.538 0.570 0.570 7.98
79)	1,1,2-trichloroethane	0.277 0.354 0.295 0.302 0.304 0.277 0.286 0.240 0.290 0.292 10.34
80)	2-hexanone	0.238 0.300 0.244 0.228 0.262 0.207 0.241 0.236 0.244 0.244 11.14
81)	tetrachloroethene	0.334 0.424 0.356 0.376 0.387 0.334 0.397 0.302 0.333 0.360 10.74
82)	1,3-dichloropropane	0.549 0.712 0.591 0.599 0.614 0.588 0.587 0.559 0.569 0.596 8.00
83)	butyl acetate	

6.7.5
6

Initial Calibration Summary**Job Number:** JD7282**Sample:** VA9958-ICC9958**Account:** UTC United Technologies Corporation**Lab FileID:** A256236.D**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	0.307 0.393 0.343 0.328 0.367 0.315 0.331	0.339	0.340	8.25
84)	dibromochloromethane 0.326 0.427 0.364 0.379 0.383 0.317 0.375 0.300 0.342		0.357	11.03
85)	1,2-dibromoethane 0.365 0.470 0.381 0.373 0.393 0.379 0.377 0.331 0.362		0.381	9.83
86)	n-butyl ether 1.611 1.988 1.668 1.696 1.730 1.742 1.594 1.811 1.659 1.701 1.720			6.60
87)	chlorobenzene 0.942 1.085 0.929 0.945 1.001 0.881 0.972 0.930 0.924 0.996 0.960			5.86
88)	1,1,1,2-tetrachloroethane 0.383 0.451 0.405 0.438 0.435 0.381 0.437	0.378	0.413	7.31
89)	ethylbenzene 1.540 1.905 1.642 1.695 1.762 1.582 1.682 1.735 1.620 1.600 1.676			6.33
90)	m,p-xylene 0.579 0.682 0.628 0.641 0.681 0.633 0.670 0.662 0.613 0.485 0.627			9.48
91)	o-xylene 0.625 0.751 0.677 0.720 0.762 0.646 0.762 0.597 0.644 0.573 0.676			10.30
92)	styrene 0.939 1.187 0.997 1.059 1.193 0.974 1.191	1.001	1.068	10.00
93)	butyl acrylate 0.846 1.048 0.864 0.851 0.933 0.850 0.846 0.754 0.879		0.875	9.14
94)	n-amyl acetate 0.358 0.445 0.373 0.370 0.410 0.327 0.378 0.351 0.376		0.376	9.05
95)	bromoform 0.224 0.275 0.231 0.236 0.265 0.211 0.264	0.220	0.241	9.95
96)	isopropylbenzene 1.641 1.911 1.770 1.892 1.901 1.712 1.783 1.611 1.672		1.766	6.54
97)	cis-1,4-dichloro-2-butene 0.182 0.245 0.207 0.213 0.231 0.185 0.214	0.190	0.208	10.80
98)	I 1,4-dichlorobenzene-d -----ISTD-----			
99)	4-bromofluorobenzene (s) 0.875 0.871 0.882 0.863 0.890 0.892 0.882 0.869 0.900 0.876 0.880			1.31
100)	bromobenzene 0.687 0.894 0.744 0.734 0.812 0.694 0.824	0.737	0.766	9.32
101)	1,1,2,2-tetrachloroethane 1.112 1.420 1.170 1.140 1.166 1.107 1.111 1.065 1.118		1.157	8.97
102)	trans-1,4-dichloro-2-butene 0.305 0.311 0.293 0.308	0.281	0.308	0.301
103)	1,2,3-trichloropropane 0.260 0.364 0.296 0.295 0.305 0.289 0.295	0.304	0.301	9.67
104)	n-propylbenzene 3.572 4.153 3.895 3.921 3.966 3.755 3.775 3.615 3.754 3.758 3.816			4.51
105)	2-chlorotoluene 0.706 0.854 0.783 0.828 0.876 0.771 0.899 0.763 0.744		0.803	8.09
106)	4-chlorotoluene 2.016 2.435 2.160 2.152 2.296 2.092 2.253 2.051 2.103		2.173	6.12
107)	1,3,5-trimethylbenzene 2.674 3.076 3.017 3.159 3.195 2.676 3.164 2.737 2.718 2.674 2.909			7.94
108)	tert-butylbenzene 2.223 2.534 2.528 2.734 2.670 2.213 2.642	2.176	2.465	9.20
109)	1,2,4-trimethylbenzene 2.577 3.085 2.880 2.985 3.101 2.593 3.038 2.585 2.648 2.548 2.804			8.35
110)	sec-butylbenzene 3.289 3.761 3.910 4.143 4.103 3.518 3.918 3.225 3.441		3.701	9.31
111)	1,3-dichlorobenzene 1.344 1.686 1.411 1.421 1.545 1.360 1.541 1.363 1.397 1.519 1.459			7.55
112)	p-isopropyltoluene 2.718 3.191 3.079 3.266 3.375 2.710 3.284 2.674 2.826 2.729 2.985			9.38
113)	1,4-dichlorobenzene			

Initial Calibration Summary**Job Number:** JD7282**Sample:** VA9958-ICC9958**Account:** UTC United Technologies Corporation**Lab FileID:** A256236.D**Project:** ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

114)	1,2-dichlorobenzene	1.390 1.687 1.449 1.446 1.545 1.397 1.530 1.670 1.403 1.349 1.487	7.95
		1.414 1.652 1.478 1.499 1.604 1.422 1.591 1.469 1.429	1.506 5.83
115)	n-butylbenzene	1.428 1.568 1.533 1.590 1.644 1.536 1.618 1.459 1.446	1.536 5.05
116)	1,2-dibromo-3-chloropropane	0.261 0.353 0.310 0.290 0.302	0.294 0.289 0.300 9.32
117)	1,3,5-trichlorobenzene	1.135 1.381 1.163 1.168 1.191 1.128 1.230 1.285 1.112 1.103 1.190	7.36
118)	2-ethylhexyl acrylate	0.908 0.949 1.028	1.040 0.688 0.922 15.41
119)	1,2,4-trichlorobenzene	1.080 1.256 1.101 1.110 1.135 1.192 1.156 1.086 1.053 1.116 1.129	5.30
120)	hexachlorobutadiene	0.387 0.485 0.439 0.421 0.457 0.430 0.479	0.393 0.436 8.33
121)	naphthalene	3.645 4.224 3.876 3.826 3.843 3.440 3.650 3.298 3.412 4.082	3.730 7.97
122)	1,2,3-trichlorobenzene	1.094 1.267 1.165 1.167 1.185 1.137 1.203 0.980 1.041	1.138 7.69
123)	hexachloroethane	0.402 0.448 0.453 0.495 0.499	0.533 0.381 0.459 11.89
124)	2-methylnaphthalene	1.994 2.124 2.193	2.189 1.597 2.019 12.36
125)	ethylenimine		0.000# -1.00
126)	bis(chloromethyl)ether		0.000# -1.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

MA9958.M

Wed Feb 05 14:32:19 2020 RPT1

Initial Calibration Verification

Job Number: JD7282

Sample: VA9958-ICV9958

Account: UTC United Technologies Corporation

Lab FileID: A256241.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VA9958\A256241.D Vial: 14
 Acq On : 4 Feb 2020 10:04 pm Operator: BridgetK
 Sample : icv9958-50 Inst : MSA
 Misc : MS40670,VA9958,5,,,1 Multiplr: 1.00
 MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\MA9958.M (RTE Integrator)
 Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 Last Update : Wed Feb 05 10:36:55 2020
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	109	0.00	8.14
2	ethanol			-----NA-----			
3 M	tertiary butyl alcohol	1.217	1.207	0.8	112	0.00	8.27
4	1,4-dioxane	0.083	0.083	0.0	116	0.00	12.15
5 I	pentafluorobenzene	1.000	1.000	0.0	108	0.00	10.52
6 M	chlorodifluoromethane			-----NA-----			
7 M	dichlorodifluoromethane	1.340	1.036	22.7	82	0.00	4.54
8 M	chloromethane	1.944	1.545	20.5	90	0.00	4.96
9 M	vinyl chloride	1.969	1.592	19.1	90	0.00	5.23
10	1,3-butadiene	0.965	1.129	-17.0	131	0.00	5.24
11 M	bromomethane	1.222	1.420	-16.2	120	0.00	5.90
12 M	chloroethane	0.787	0.671	14.7	92	-0.01	6.06
13	vinyl bromide	0.719	0.792	-10.2	120	0.00	6.46
14 M	trichlorofluoromethane	1.169	1.118	4.4	102	0.00	6.61
15 M	ethyl ether	0.344	0.342	0.6	108	0.00	7.00
16 M	acrolein	0.165	0.166	-0.6	105	0.00	7.23
17	freon 113	0.508	0.504	0.8	108	0.02	7.49
18 M	1,1-dichloroethene	0.588	0.582	1.0	109	0.00	7.45
19 M	acetone	0.314	0.307	2.2	109	0.00	7.45
20 M	acetonitrile	0.149	0.127	14.8	95	0.00	7.89
21 M	iodomethane	0.878	1.142	-30.1#	147	0.00	7.73
22 M	carbon disulfide	1.860	2.212	-18.9	135	0.00	7.88
23 M	methylene chloride	0.701	0.688	1.9	111	0.00	8.20
24 M	methyl acetate	0.672	0.631	6.1	102	0.00	7.94
25 M	methyl tert butyl ether	1.878	1.809	3.7	107	0.00	8.58
26 M	trans-1,2-dichloroethene	0.563	0.556	1.2	110	0.00	8.62
27	hexane	0.701	0.549	21.7	82	0.00	9.00
28 M	di-isopropyl ether	2.174	1.991	8.4	100	0.00	9.21
29 M	ethyl tert-butyl ether	1.878	1.740	7.3	100	0.00	9.69
30 M	2-butanone	0.116	0.122	-5.2	109	0.00	9.89
31 M	1,1-dichloroethane	1.075	1.054	2.0	107	0.00	9.22
32 M	chloroprene	0.866	0.865	0.1	107	0.00	9.33
33 M	acrylonitrile	0.316	0.344	-8.9	115	0.00	8.50
34 M	vinyl acetate	0.132	0.131	0.8	104	0.00	9.15
35 M	ethyl acetate	0.143	0.128	10.5	94	0.00	9.91
36 M	2,2-dichloropropane	0.974	0.900	7.6	100	0.00	10.01
37 M	cis-1,2-dichloroethene	0.656	0.634	3.4	104	0.00	9.96
38	methyl acrylate	0.121	0.132	-9.1	111	-0.01	9.99
39 M	propionitrile	0.136	0.154	-13.2	124	0.00	9.96
40 M	bromochloromethane	0.309	0.318	-2.9	110	0.00	10.27
41 M	tetrahydrofuran	0.300	0.312	-4.0	112	0.00	10.29

Initial Calibration Verification

Job Number: JD7282

Sample: VA9958-ICV9958

Account: UTC United Technologies Corporation

Lab FileID: A256241.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

42 M	chloroform	1.043	1.005	3.6	107	0.00	10.36
43	tert-butyl formate	0.583	0.618	-6.0	112	0.00	10.40
44 S	dibromofluoromethane (s)	0.548	0.546	0.4	108	0.00	10.55
45 M	methacrylonitrile	0.328	0.334	-1.8	110	0.00	10.17
46	cyclohexane	0.979	0.972	0.7	104	0.00	10.76
47 M	1,1,1-trichloroethane	0.995	0.997	-0.2	107	0.00	10.64
48	iso-butyl alcohol	0.113	0.110	2.7	109	0.00	10.75
49	1,1-dichloropropene	0.796	0.765	3.9	106	0.00	10.81
50	carbon tetrachloride	0.820	0.844	-2.9	110	0.00	10.84
51	tert-amyl alcohol	0.103	0.103	0.0	111	0.00	10.94
52 I	1,4-difluorobenzene	1.000	1.000	0.0	106	0.00	11.49
53 S	1,2-dichloroethane-d4 (s)	0.390	0.382	2.1	105	0.00	10.99
54 M	benzene	1.372	1.361	0.8	107	0.00	11.07
55 M	iso-octane	1.105	1.136	-2.8	104	0.00	11.18
56	tert-amyl methyl ether	1.111	1.025	7.7	99	0.00	11.15
57 M	heptane	0.223	0.217	2.7	97	0.00	11.33
58 M	isopropyl acetate	0.103	0.102	1.0	102	0.00	10.96
59 M	1,2-dichloroethane	0.516	0.478	7.4	105	0.00	11.08
60	n-butyl alcohol	0.020	0.020	0.0	108	0.00	11.53
61	ethyl acrylate	0.566	0.526	7.1	102	0.00	11.78
62 M	trichloroethene	0.326	0.327	-0.3	107	0.00	11.82
63 M	2-nitropropane	0.193	0.197	-2.1	114	0.00	12.59
64 m	methylcyclohexane	0.609	0.629	-3.3	107	0.00	12.13
65 M	2-chloroethyl vinyl ether	0.215	0.223	-3.7	109	0.00	12.63
66 M	methyl methacrylate	0.101	0.107	-5.9	111	0.00	12.07
67 M	1,2-dichloropropane	0.352	0.353	-0.3	105	0.00	12.11
68 M	dibromomethane	0.232	0.224	3.4	105	0.00	12.23
69 M	bromodichloromethane	0.451	0.449	0.4	103	0.00	12.39
70	epichlorohydrin	0.058	0.057	1.7	109	0.00	12.72
71 M	cis-1,3-dichloropropene	0.539	0.533	1.1	102	0.00	12.87
72 M	4-methyl-2-pentanone	0.234	0.233	0.4	106	0.00	12.98
73 M	3-methyl-1-butanol	0.047	0.048	-2.1	109	0.00	12.97
74 I	chlorobenzene-d5	1.000	1.000	0.0	105	0.00	14.87
75 S	toluene-d8 (s)	1.414	1.458	-3.1	104	0.00	13.21
76	toluene	0.939	0.967	-3.0	105	0.00	13.29
77	trans-1,3-dichloropropene	0.575	0.593	-3.1	104	0.00	13.48
78	ethyl methacrylate	0.570	0.590	-3.5	108	0.00	13.46
79	1,1,2-trichloroethane	0.292	0.300	-2.7	104	0.00	13.72
80	2-hexanone	0.244	0.236	3.3	108	0.00	13.90
81 M	tetrachloroethene	0.360	0.391	-8.6	109	0.00	13.90
82 M	1,3-dichloropropane	0.596	0.600	-0.7	105	0.00	13.92
83 M	butyl acetate	0.340	0.340	0.0	108	0.00	13.98
84 M	dibromochloromethane	0.357	0.388	-8.7	107	0.00	14.20
85 M	1,2-dibromoethane	0.381	0.394	-3.4	110	0.00	14.37
86 M	n-butyl ether	1.720	1.618	5.9	100	0.00	14.85
87 M	chlorobenzene	0.960	0.968	-0.8	107	0.00	14.91
88 M	1,1,1,2-tetrachloroethane	0.413	0.442	-7.0	105	0.00	14.98
89 M	ethylbenzene	1.676	1.669	0.4	103	0.00	14.97
90 M	m,p-xylene	0.627	0.641	-2.2	105	0.00	15.11
91 M	o-xylene	0.676	0.708	-4.7	103	0.00	15.56
92 M	styrene	1.068	1.059	0.8	105	0.00	15.57
93	butyl acrylate	0.875	0.846	3.3	104	0.00	15.35
94	n-amyl acetate	0.376	0.360	4.3	102	0.00	15.59
95 M	bromoform	0.241	0.263	-9.1	117	0.00	15.83
96	isopropylbenzene	1.766	1.863	-5.5	103	0.00	15.95
97	cis-1,4-dichloro-2-butene	0.208	0.226	-8.7	111	0.00	15.98
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	17.49

6.7.6
6

Initial Calibration Verification

Job Number: JD7282

Sample: VA9958-ICV9958

Account: UTC United Technologies Corporation

Lab FileID: A256241.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99 S	4-bromofluorobenzene (s)	0.880	0.857	2.6	108	0.00	16.18
100 M	bromobenzene	0.766	0.731	4.6	108	0.00	16.39
101 M	1,1,2,2-tetrachloroethane	1.157	1.111	4.0	105	0.00	16.26
102 M	trans-1,4-dichloro-2-bute	0.301	0.290	3.7	107	0.00	16.29
103 M	1,2,3-trichloropropane	0.301	0.291	3.3	107	0.00	16.36
104 M	n-propylbenzene	3.816	3.794	0.6	105	0.00	16.42
105 M	2-chlorotoluene	0.803	0.775	3.5	101	0.00	16.57
106 M	4-chlorotoluene	2.173	2.163	0.5	109	0.00	16.70
107 M	1,3,5-trimethylbenzene	2.909	3.006	-3.3	103	0.00	16.60
108 M	tert-butylbenzene	2.465	2.678	-8.6	106	0.00	16.98
109 M	1,2,4-trimethylbenzene	2.804	2.958	-5.5	107	0.00	17.03
110 M	sec-butylbenzene	3.701	3.950	-6.7	103	0.00	17.22
111 M	1,3-dichlorobenzene	1.459	1.468	-0.6	112	0.00	17.42
112 M	p-isopropyltoluene	2.985	3.157	-5.8	105	0.00	17.37
113 M	1,4-dichlorobenzene	1.487	1.473	0.9	110	0.00	17.53
114 M	1,2-dichlorobenzene	1.506	1.487	1.3	107	0.00	17.94
115 M	n-butylbenzene	1.536	1.544	-0.5	105	0.00	17.82
116 M	1,2-dibromo-3-chloropropene	0.300	0.304	-1.3	113	0.00	18.79
117 M	1,3,5-trichlorobenzene	1.190	1.189	0.1	110	0.00	19.01
118	2-ethylhexyl acrylate	0.922	1.042	-13.0	119	0.00	19.73
119 M	1,2,4-trichlorobenzene	1.129	1.118	1.0	109	0.00	19.75
120 M	hexachlorobutadiene	0.436	0.420	3.7	108	0.00	19.88
121 M	naphthalene	3.730	3.962	-6.2	112	0.00	20.08
122 M	1,2,3-trichlorobenzene	1.138	1.170	-2.8	109	0.00	20.33
123 M	hexachloroethane	0.459	0.504	-9.8	110	0.00	18.28
124	2-methylnaphthalene	2.019	2.229	-10.4	114	0.00	21.39
125	ethylenimine			-----NA-----			
126	bis(chloromethyl)ether			-----NA-----			
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(#= Out of Range
A256236.D MA9958.MSPCC's out = 0 CCC's out = 0
Wed Feb 05 14:31:58 2020 RPT16.7.6
6

Initial Calibration Verification

Job Number: JD7282

Sample: VA9958-ICV9958

Account: UTC United Technologies Corporation

Lab FileID: A256242.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VA9958\A256242.D Vial: 15
 Acq On : 4 Feb 2020 10:34 pm Operator: BridgetK
 Sample : icv9958-50 Inst : MSA
 Misc : MS40670,VA9958,5,,,1 Multiplr: 1.00
 MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\MA9958.M (RTE Integrator)
 Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 Last Update : Wed Feb 05 10:36:55 2020
 Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	104	0.00	8.14
2	ethanol		-----NA-----				
3 M	tertiary butyl alcohol		-----NA-----				
4	1,4-dioxane		-----NA-----				
5 I	pentafluorobenzene	1.000	1.000	0.0	103	0.00	10.52
6 M	chlorodifluoromethane		-----NA-----				
7 M	dichlorodifluoromethane		-----NA-----				
8 M	chloromethane		-----NA-----				
9 M	vinyl chloride		-----NA-----				
10	1,3-butadiene		-----NA-----				
11 M	bromomethane		-----NA-----				
12 M	chloroethane		-----NA-----				
13	vinyl bromide		-----NA-----				
14 M	trichlorofluoromethane		-----NA-----				
15 M	ethyl ether		-----NA-----				
16 M	acrolein		-----NA-----				
17	freon 113		-----NA-----				
18 M	1,1-dichloroethene		-----NA-----				
19 M	acetone		-----NA-----				
20 M	acetonitrile	0.149	0.135	9.4	95	0.00	7.90
21 M	iodomethane		-----NA-----				
22 M	carbon disulfide		-----NA-----				
23 M	methylene chloride		-----NA-----				
24 M	methyl acetate		-----NA-----				
25 M	methyl tert butyl ether		-----NA-----				
26 M	trans-1,2-dichloroethene		-----NA-----				
27	hexane		-----NA-----				
28 M	di-isopropyl ether		-----NA-----				
29 M	ethyl tert-butyl ether		-----NA-----				
30 M	2-butanone		-----NA-----				
31 M	1,1-dichloroethane		-----NA-----				
32 M	chloroprene		-----NA-----				
33 M	acrylonitrile	0.316	0.304	3.8	96	0.00	8.50
34 M	vinyl acetate		-----NA-----				
35 M	ethyl acetate		-----NA-----				
36 M	2,2-dichloropropane		-----NA-----				
37 M	cis-1,2-dichloroethene		-----NA-----				
38	methyl acrylate		-----NA-----				
39 M	propionitrile		-----NA-----				
40 M	bromochloromethane		-----NA-----				
41 M	tetrahydrofuran		-----NA-----				

Initial Calibration Verification

Job Number: JD7282

Sample: VA9958-ICV9958

Account: UTC United Technologies Corporation

Lab FileID: A256242.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

42 M	chloroform		-----	-NA-----							
43	tert-butyl formate		-----	-NA-----							
44 S	dibromofluoromethane (s)	0.548	0.538	1.8	100	0.00	10.55				
45 M	methacrylonitrile		-----	-NA-----							
46	cyclohexane		-----	-NA-----							
47 M	1,1,1-trichloroethane		-----	-NA-----							
48	iso-butyl alcohol		-----	-NA-----							
49	1,1-dichloropropene		-----	-NA-----							
50	carbon tetrachloride		-----	-NA-----							
51	tert-amyl alcohol		-----	-NA-----							
52 I	1,4-difluorobenzene	1.000	1.000	0.0	99	0.00	11.48				
53 S	1,2-dichloroethane-d4 (s)	0.390	0.389	0.3	100	0.00	10.99				
54 M	benzene		-----	-NA-----							
55 M	iso-octane		-----	-NA-----							
56	tert-amyl methyl ether		-----	-NA-----							
57 M	heptane		-----	-NA-----							
58 M	isopropyl acetate		-----	-NA-----							
59 M	1,2-dichloroethane		-----	-NA-----							
60	n-butyl alcohol		-----	-NA-----							
61	ethyl acrylate		-----	-NA-----							
62 M	trichloroethene		-----	-NA-----							
63 M	2-nitropropane		-----	-NA-----							
64 m	methylcyclohexane		-----	-NA-----							
65 M	2-chloroethyl vinyl ether		-----	-NA-----							
66 M	methyl methacrylate		-----	-NA-----							
67 M	1,2-dichloropropane		-----	-NA-----							
68 M	dibromomethane		-----	-NA-----							
69 M	bromodichloromethane		-----	-NA-----							
70	epichlorohydrin		-----	-NA-----							
71 M	cis-1,3-dichloropropene		-----	-NA-----							
72 M	4-methyl-2-pentanone		-----	-NA-----							
73 M	3-methyl-1-butanol		-----	-NA-----							
74 I	chlorobenzene-d5	1.000	1.000	0.0	89	0.00	14.87				
75 S	toluene-d8 (s)	1.414	1.456	-3.0	88	0.00	13.21				
76	toluene		-----	-NA-----							
77	trans-1,3-dichloropropene		-----	-NA-----							
78	ethyl methacrylate		-----	-NA-----							
79	1,1,2-trichloroethane		-----	-NA-----							
80	2-hexanone		-----	-NA-----							
81 M	tetrachloroethene	0.360	0.367	-1.9	87	0.00	13.90				
82 M	1,3-dichloropropane		-----	-NA-----							
83 M	butyl acetate		-----	-NA-----							
84 M	dibromochloromethane		-----	-NA-----							
85 M	1,2-dibromoethane		-----	-NA-----							
86 M	n-butyl ether		-----	-NA-----							
87 M	chlorobenzene		-----	-NA-----							
88 M	1,1,1,2-tetrachloroethane		-----	-NA-----							
89 M	ethylbenzene		-----	-NA-----							
90 M	m,p-xylene		-----	-NA-----							
91 M	o-xylene		-----	-NA-----							
92 M	styrene		-----	-NA-----							
93	butyl acrylate		-----	-NA-----							
94	n-amyl acetate		-----	-NA-----							
95 M	bromoform		-----	-NA-----							
96	isopropylbenzene		-----	-NA-----							
97	cis-1,4-dichloro-2-butene		-----	-NA-----							
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	96	0.00	17.49				

Initial Calibration Verification

Job Number: JD7282

Sample: VA9958-ICV9958

Account: UTC United Technologies Corporation

Lab FileID: A256242.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99 S	4-bromofluorobenzene (s)	0.880	0.842	4.3	94	0.00	16.18
100 M	bromobenzene		-----	NA	-----		
101 M	1,1,2,2-tetrachloroethane		-----	NA	-----		
102 M	trans-1,4-dichloro-2-bute		-----	NA	-----		
103 M	1,2,3-trichloropropane		-----	NA	-----		
104 M	n-propylbenzene		-----	NA	-----		
105 M	2-chlorotoluene		-----	NA	-----		
106 M	4-chlorotoluene		-----	NA	-----		
107 M	1,3,5-trimethylbenzene		-----	NA	-----		
108 M	tert-butylbenzene		-----	NA	-----		
109 M	1,2,4-trimethylbenzene		-----	NA	-----		
110 M	sec-butylbenzene		-----	NA	-----		
111 M	1,3-dichlorobenzene		-----	NA	-----		
112 M	p-isopropyltoluene		-----	NA	-----		
113 M	1,4-dichlorobenzene		-----	NA	-----		
114 M	1,2-dichlorobenzene		-----	NA	-----		
115 M	n-butylbenzene		-----	NA	-----		
116 M	1,2-dibromo-3-chloropropene		-----	NA	-----		
117 M	1,3,5-trichlorobenzene		-----	NA	-----		
118	2-ethylhexyl acrylate		-----	NA	-----		
119 M	1,2,4-trichlorobenzene		-----	NA	-----		
120 M	hexachlorobutadiene		-----	NA	-----		
121 M	naphthalene		-----	NA	-----		
122 M	1,2,3-trichlorobenzene		-----	NA	-----		
123 M	hexachloroethane		-----	NA	-----		
124	2-methylnaphthalene		-----	NA	-----		
125	ethylenimine		-----	NA	-----		
126	bis(chloromethyl)ether		-----	NA	-----		
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(#= Out of Range
A256236.D MA9958.MSPCC's out = 0 CCC's out = 0
Wed Feb 05 14:32:00 2020 RPT1

67.7

Continuing Calibration Summary

Page 1 of 3

Job Number: JD7282

Sample: VA10060-CC9958

Account: UTC United Technologies Corporation

Lab FileID: A258161.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...020\va10060\A258161.D Vial: 1
 Acq On : 20 May 2020 8:15 am Operator: payalr
 Sample : cc9958-20 Inst : MSA
 Misc : MS43183,VA10060,5,,,,1 Multiplr: 1.00
 MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\MA9958.M (RTE Integrator)
 Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 Last Update : Wed Feb 05 10:36:55 2020
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	107	-0.02	8.12
2	ethanol			-----NA-----			
3 M	tertiary butyl alcohol	1.217	1.153	5.3	103	0.00	8.26
4	1,4-dioxane	0.083	0.085	-2.4	121	-0.02	12.14
5 I	pentafluorobenzene	1.000	1.000	0.0	94	-0.02	10.50
6 M	chlorodifluoromethane			-----NA-----			
7 M	dichlorodifluoromethane	1.340	1.648	-23.0#	112	-0.05	4.49
8 M	chloromethane	1.944	2.096	-7.8	101	-0.04	4.91
9 M	vinyl chloride	1.969	1.826	7.3	88	-0.04	5.18
10	1,3-butadiene	0.965	0.846	12.3	85	-0.02	5.23
11 M	bromomethane	1.222	1.139	6.8	88	-0.03	5.86
12 M	chloroethane	0.787	0.751	4.6	93	-0.01	6.06
13	vinyl bromide	0.719	0.658	8.5	86	-0.03	6.43
14 M	trichlorofluoromethane	1.169	1.207	-3.3	96	-0.04	6.57
15 M	ethyl ether	0.344	0.309	10.2	86	-0.02	6.99
16 M	acrolein	0.165	0.156	5.5	88	-0.01	7.22
17	freon 113	0.508	0.519	-2.2	101	0.00	7.47
18 M	1,1-dichloroethene	0.588	0.471	19.9	76	-0.03	7.43
19 M	acetone	0.314	0.310	1.3	96	-0.02	7.43
20 M	acetonitrile	0.149	0.174	-16.8	113	-0.03	7.86
21 M	iodomethane	0.878	1.026	-16.9	117	-0.03	7.70
22 M	carbon disulfide	1.860	1.644	11.6	87	-0.03	7.86
23 M	methylene chloride	0.701	0.587	16.3	81	-0.02	8.18
24 M	methyl acetate	0.672	0.585	12.9	82	-0.02	7.92
25 M	methyl tert butyl ether	1.878	2.121	-12.9	109	-0.01	8.57
26 M	trans-1,2-dichloroethene	0.563	0.461	18.1	81	-0.02	8.60
27	hexane	0.701	0.680	3.0	89	-0.02	8.98
28 M	di-isopropyl ether	2.174	2.051	5.7	93	-0.02	9.19
29 M	ethyl tert-butyl ether	1.878	2.096	-11.6	108	-0.01	9.68
30 M	2-butanone	0.116	0.103	11.2	80	-0.02	9.87
31 M	1,1-dichloroethane	1.075	0.882	18.0	81	-0.02	9.20
32 M	chloroprene	0.866	0.640	26.1#	73	-0.02	9.31
33 M	acrylonitrile	0.316	0.326	-3.2	97	-0.02	8.48
34 M	vinyl acetate	0.132	0.109	17.4	76	-0.02	9.13
35 M	ethyl acetate	0.143	0.120	16.1	80	-0.02	9.89
36 M	2,2-dichloropropane	0.974	0.960	1.4	96	-0.01	9.99
37 M	cis-1,2-dichloroethene	0.656	0.545	16.9	82	-0.02	9.94
38	methyl acrylate	0.121	0.101	16.5	77	-0.03	9.97
39 M	propionitrile	0.136	0.146	-7.4	104	-0.02	9.94
40 M	bromochloromethane	0.309	0.275	11.0	89	-0.02	10.25
41 M	tetrahydrofuran	0.300	0.296	1.3	94	-0.03	10.27

6.7.8
6

Continuing Calibration Summary

Page 2 of 3

Job Number: JD7282

Sample: VA10060-CC9958

Account: UTC United Technologies Corporation

Lab FileID: A258161.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

42 M	chloroform	1.043	0.826	20.8#	80	-0.02	10.34
43	tert-butyl formate	0.583	0.608	-4.3	99	-0.02	10.38
44 S	dibromofluoromethane (s)	0.548	0.473	13.7	81	-0.02	10.53
45 M	methacrylonitrile	0.328	0.286	12.8	85	-0.02	10.15
46	cyclohexane	0.979	1.005	-2.7	95	-0.01	10.75
47 M	1,1,1-trichloroethane	0.995	0.911	8.4	88	-0.02	10.62
48	iso-butyl alcohol	0.113	0.109	3.5	95	-0.02	10.74
49	1,1-dichloropropene	0.796	0.578	27.4#	70	-0.02	10.79
50	carbon tetrachloride	0.820	0.737	10.1	87	-0.02	10.82
51	tert-amyl alcohol	0.103	0.104	-1.0	96	-0.03	10.90
52 I	1,4-difluorobenzene	1.000	1.000	0.0	79	-0.02	11.46
53 S	1,2-dichloroethane-d4 (s)	0.390	0.369	5.4	74	-0.03	10.97
54 M	benzene	1.372	1.285	6.3	76	-0.02	11.04
55 M	iso-octane	1.105	1.253	-13.4	90	-0.02	11.15
56	tert-amyl methyl ether	1.111	1.397	-25.7#	100	-0.02	11.12
57 M	heptane	0.223	0.249	-11.7	84	-0.02	11.31
58 M	isopropyl acetate	0.103	0.106	-2.9	80	-0.02	10.93
59 M	1,2-dichloroethane	0.516	0.448	13.2	71	-0.02	11.06
60	n-butyl alcohol	0.020	0.024	-20.0	98	-0.03	11.50
61	ethyl acrylate	0.566	0.563	0.5	80	-0.02	11.76
62 M	trichloroethene	0.326	0.289	11.3	73	-0.02	11.79
63 M	2-nitropropane	0.193	0.203	-5.2	87	-0.03	12.56
64 m	methylcyclohexane	0.609	0.670	-10.0	92	-0.02	12.12
65 M	2-chloroethyl vinyl ether	0.215	0.236	-9.8	88	-0.02	12.61
66 M	methyl methacrylate	0.101	0.100	1.0	82	-0.02	12.04
67 M	1,2-dichloropropane	0.352	0.344	2.3	79	-0.02	12.09
68 M	dibromomethane	0.232	0.213	8.2	76	-0.03	12.20
69 M	bromodichloromethane	0.451	0.429	4.9	75	-0.02	12.36
70	epichlorohydrin	0.058	0.064	-10.3	89	-0.02	12.70
71 M	cis-1,3-dichloropropene	0.539	0.519	3.7	76	-0.02	12.85
72 M	4-methyl-2-pentanone	0.234	0.248	-6.0	86	-0.02	12.95
73 M	3-methyl-1-butanol	0.047	0.055	-17.0	94	-0.02	12.95
74 I	chlorobenzene-d5	1.000	1.000	0.0	85	-0.02	14.85
75 S	toluene-d8 (s)	1.414	1.347	4.7	79	-0.02	13.19
76	toluene	0.939	0.835	11.1	75	-0.02	13.27
77	trans-1,3-dichloropropene	0.575	0.527	8.3	77	-0.02	13.46
78	ethyl methacrylate	0.570	0.544	4.6	81	-0.01	13.45
79	1,1,2-trichloroethane	0.292	0.287	1.7	83	-0.02	13.70
80	2-hexanone	0.244	0.254	-4.1	89	-0.02	13.88
81 M	tetrachloroethene	0.360	0.339	5.8	81	-0.02	13.88
82 M	1,3-dichloropropane	0.596	0.560	6.0	81	-0.02	13.90
83 M	butyl acetate	0.340	0.357	-5.0	89	-0.02	13.96
84 M	dibromochloromethane	0.357	0.359	-0.6	84	-0.02	14.18
85 M	1,2-dibromoethane	0.381	0.403	-5.8	90	-0.02	14.35
86 M	n-butyl ether	1.720	1.589	7.6	81	-0.01	14.84
87 M	chlorobenzene	0.960	0.906	5.6	83	-0.02	14.89
88 M	1,1,1,2-tetrachloroethane	0.413	0.429	-3.9	90	-0.02	14.96
89 M	ethylbenzene	1.676	1.574	6.1	82	-0.02	14.96
90 M	m,p-xylene	0.627	0.597	4.8	81	-0.02	15.09
91 M	o-xylene	0.676	0.672	0.6	85	-0.02	15.54
92 M	styrene	1.068	1.006	5.8	86	-0.02	15.55
93	butyl acrylate	0.875	0.871	0.5	86	-0.01	15.34
94	n-amyl acetate	0.376	0.380	-1.1	87	-0.02	15.57
95 M	bromoform	0.241	0.271	-12.4	100	-0.02	15.81
96	isopropylbenzene	1.766	1.726	2.3	83	-0.02	15.93
97	cis-1,4-dichloro-2-butene	0.208	0.232	-11.5	96	-0.02	15.97
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	101	-0.02	17.47

6.7.8
6

Continuing Calibration Summary

Job Number: JD7282

Sample: VA10060-CC9958

Account: UTC United Technologies Corporation

Lab FileID: A258161.D

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99 S	4-bromofluorobenzene (s)	0.880	0.784	10.9	90	-0.02	16.16
100 M	bromobenzene	0.766	0.702	8.4	96	-0.02	16.37
101 M	1,1,2,2-tetrachloroethane	1.157	1.108	4.2	96	-0.02	16.24
102 M	trans-1,4-dichloro-2-bute	0.301	0.305	-1.3	99	-0.02	16.27
103 M	1,2,3-trichloropropane	0.301	0.289	4.0	99	-0.02	16.34
104 M	n-propylbenzene	3.816	3.217	15.7	84	-0.02	16.40
105 M	2-chlorotoluene	0.803	0.692	13.8	90	-0.02	16.56
106 M	4-chlorotoluene	2.173	1.855	14.6	87	-0.02	16.68
107 M	1,3,5-trimethylbenzene	2.909	2.558	12.1	86	-0.02	16.57
108 M	tert-butylbenzene	2.465	2.088	15.3	84	-0.02	16.96
109 M	1,2,4-trimethylbenzene	2.804	2.526	9.9	89	-0.02	17.02
110 M	sec-butylbenzene	3.701	3.292	11.1	85	-0.02	17.21
111 M	1,3-dichlorobenzene	1.459	1.360	6.8	98	-0.02	17.40
112 M	p-isopropyltoluene	2.985	2.697	9.6	89	-0.02	17.35
113 M	1,4-dichlorobenzene	1.487	1.373	7.7	96	-0.02	17.50
114 M	1,2-dichlorobenzene	1.506	1.498	0.5	103	-0.02	17.92
115 M	n-butylbenzene	1.536	1.349	12.2	89	-0.02	17.81
116 M	1,2-dibromo-3-chloropropene	0.300	0.365	-21.7#	119	-0.02	18.76
117 M	1,3,5-trichlorobenzene	1.190	1.310	-10.1	114	-0.02	18.99
118	2-ethylhexyl acrylate	0.922	0.907	1.6	101	-0.02	19.71
119 M	1,2,4-trichlorobenzene	1.129	1.370	-21.3#	126	-0.02	19.73
120 M	hexachlorobutadiene	0.436	0.491	-12.6	113	-0.02	19.86
121 M	naphthalene	3.730	5.118	-37.2#	134	-0.02	20.06
122 M	1,2,3-trichlorobenzene	1.138	1.553	-36.5#	135	-0.02	20.31
123 M	hexachloroethane	0.459	0.460	-0.2	103	-0.02	18.26
124	2-methylnaphthalene	2.019	3.043	-50.7#	154	-0.02	21.37
125	ethylenimine			-----NA-----			
126	bis(chloromethyl)ether			-----NA-----			
<hr/>							
<hr/>							

(#= Out of Range
A256235.D MA9958.MSPCC's out = 0 CCC's out = 0
Wed May 20 23:30:53 20206.7.8
6

Run Sequence Report

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Run ID:	Method:	Instrument ID:
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2V2712-BFB	2V65562.D	03/07/20 14:46	n/a	BFB Tune
V2V2712-IC2712	2V65563.D	03/07/20 15:18	n/a	Initial cal 0.2
V2V2712-IC2712	2V65564.D	03/07/20 15:43	n/a	Initial cal 0.5
V2V2712-IC2712	2V65565.D	03/07/20 16:08	n/a	Initial cal 1
V2V2712-IC2712	2V65566.D	03/07/20 16:34	n/a	Initial cal 2
V2V2712-IC2712	2V65567.D	03/07/20 16:59	n/a	Initial cal 4
V2V2712-IC2712	2V65568.D	03/07/20 17:25	n/a	Initial cal 8
V2V2712-IC2712	2V65569.D	03/07/20 17:50	n/a	Initial cal 20
V2V2712-ICC2712	2V65570.D	03/07/20 18:16	n/a	Initial cal 50
V2V2712-IC2712	2V65571.D	03/07/20 18:42	n/a	Initial cal 100
V2V2712-IC2712	2V65572.D	03/07/20 19:07	n/a	Initial cal 200
V2V2712-ICV2712	2V65575.D	03/07/20 20:23	n/a	Initial cal verification 50
V2V2712-ICV2712	2V65576.D	03/07/20 20:49	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Run ID: V2V2800	Method: SW846 8260C	Instrument ID: GCMS2V		
Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2V2800-BFB	2V67666.D	05/21/20 08:30	n/a	BFB Tune
V2V2800-CC2712	2V67666.D	05/21/20 08:30	n/a	Continuing cal 20
V2V2800-BS	2V67667.D	05/21/20 08:56	n/a	Blank Spike
V2V2800-MB	2V67669.D	05/21/20 09:47	n/a	Method Blank
JD7301-1	2V67670.D	05/21/20 10:37	n/a	(used for QC only; not part of job JD7282)
ZZZZZZ	2V67671.D	05/21/20 11:36	n/a	(unrelated sample)
ZZZZZZ	2V67672.D	05/21/20 12:01	n/a	(unrelated sample)
ZZZZZZ	2V67673.D	05/21/20 12:40	n/a	(unrelated sample)
JD7301-1MS	2V67675.D	05/21/20 14:03	n/a	Matrix Spike
JD7301-1MSD	2V67677.D	05/21/20 15:15	n/a	Matrix Spike Duplicate
JD7282-3	2V67679.D	05/21/20 16:06	n/a	HSSER-RAMW06-051320
JD7282-4	2V67680.D	05/21/20 16:32	n/a	HSSER-RAMW05-051320
ZZZZZZ	2V67681.D	05/21/20 16:57	n/a	(unrelated sample)
ZZZZZZ	2V67682.D	05/21/20 17:23	n/a	(unrelated sample)
ZZZZZZ	2V67683.D	05/21/20 17:48	n/a	(unrelated sample)
ZZZZZZ	2V67684.D	05/21/20 18:14	n/a	(unrelated sample)
ZZZZZZ	2V67685.D	05/21/20 18:40	n/a	(unrelated sample)
ZZZZZZ	2V67686.D	05/21/20 19:05	n/a	(unrelated sample)
ZZZZZZ	2V67687.D	05/21/20 19:31	n/a	(unrelated sample)
ZZZZZZ	2V67688.D	05/21/20 19:56	n/a	(unrelated sample)

Run Sequence Report

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Run ID: VA10060	Method: SW846 8260C	Instrument ID: GCMSA		
Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
VA10060-BFB	A258161.D	05/20/20 08:15	n/a	BFB Tune
VA10060-CC9958	A258161.D	05/20/20 08:15	n/a	Continuing cal 20
VA10060-BS	A258163.D	05/20/20 09:52	n/a	Blank Spike
VA10060-MB	A258165.D	05/20/20 10:49	n/a	Method Blank
JD7282-9	A258166.D	05/20/20 11:24	n/a	HSSEN-RAMW02-051420
JD7282-11	A258167.D	05/20/20 11:53	n/a	HSSEN-RAMW01-051420
ZZZZZZ	A258168.D	05/20/20 12:21	n/a	(unrelated sample)
JD7282-9MS	A258169.D	05/20/20 12:49	n/a	Matrix Spike
JD7282-9MSD	A258170.D	05/20/20 13:18	n/a	Matrix Spike Duplicate
JD7282-12	A258172.D	05/20/20 14:15	n/a	HSSEN-TBLK02-051220
JD7282-1	A258173.D	05/20/20 14:43	n/a	HSSEN-RAMW08-051220
JD7282-2	A258174.D	05/20/20 15:12	n/a	HSSEN-RAMW07-051320
JD7282-3	A258175.D	05/20/20 15:40	n/a	HSSEN-RAMW06-051320
JD7282-5	A258177.D	05/20/20 16:37	n/a	HSSEN-RAMW04-051320
JD7282-6	A258178.D	05/20/20 17:06	n/a	HSSEN-EBLK02-051320
JD7282-7	A258179.D	05/20/20 17:34	n/a	HSSEN-RAMW03-051320
JD7282-8	A258180.D	05/20/20 18:03	n/a	HSSEN-DUP02-051320
JD7282-10	A258181.D	05/20/20 18:31	n/a	HSSEN-FBLK02-051420

Run Sequence Report

Job Number: JD7282

Account: UTC United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Run ID: VA9958	Method: SW846 8260C	Instrument ID: GCMSA
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
VA9958-BFB	A256228.D	02/04/20 15:40	n/a	BFB Tune
VA9958-IC9958	A256229.D	02/04/20 16:10	n/a	Initial cal 0.2
VA9958-IC9958	A256230.D	02/04/20 16:40	n/a	Initial cal 0.5
VA9958-IC9958	A256231.D	02/04/20 17:09	n/a	Initial cal 1
VA9958-IC9958	A256232.D	02/04/20 17:39	n/a	Initial cal 2
VA9958-IC9958	A256233.D	02/04/20 18:09	n/a	Initial cal 4
VA9958-IC9958	A256234.D	02/04/20 18:38	n/a	Initial cal 8
VA9958-IC9958	A256235.D	02/04/20 19:08	n/a	Initial cal 20
VA9958-ICC9958	A256236.D	02/04/20 19:37	n/a	Initial cal 50
VA9958-IC9958	A256237.D	02/04/20 20:07	n/a	Initial cal 100
VA9958-IC9958	A256238.D	02/04/20 20:36	n/a	Initial cal 200
VA9958-ICV9958	A256241.D	02/04/20 22:04	n/a	Initial cal verification 50
VA9958-ICV9958	A256242.D	02/04/20 22:34	n/a	Initial cal verification 50

MS Volatiles**Raw Data**

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258173.d
 Acq On : 20 May 2020 2:43 pm
 Operator : edwardd
 Sample : JD7282-1 Inst : MSA
 Misc : MS43215,VA10060,5,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:02:30 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

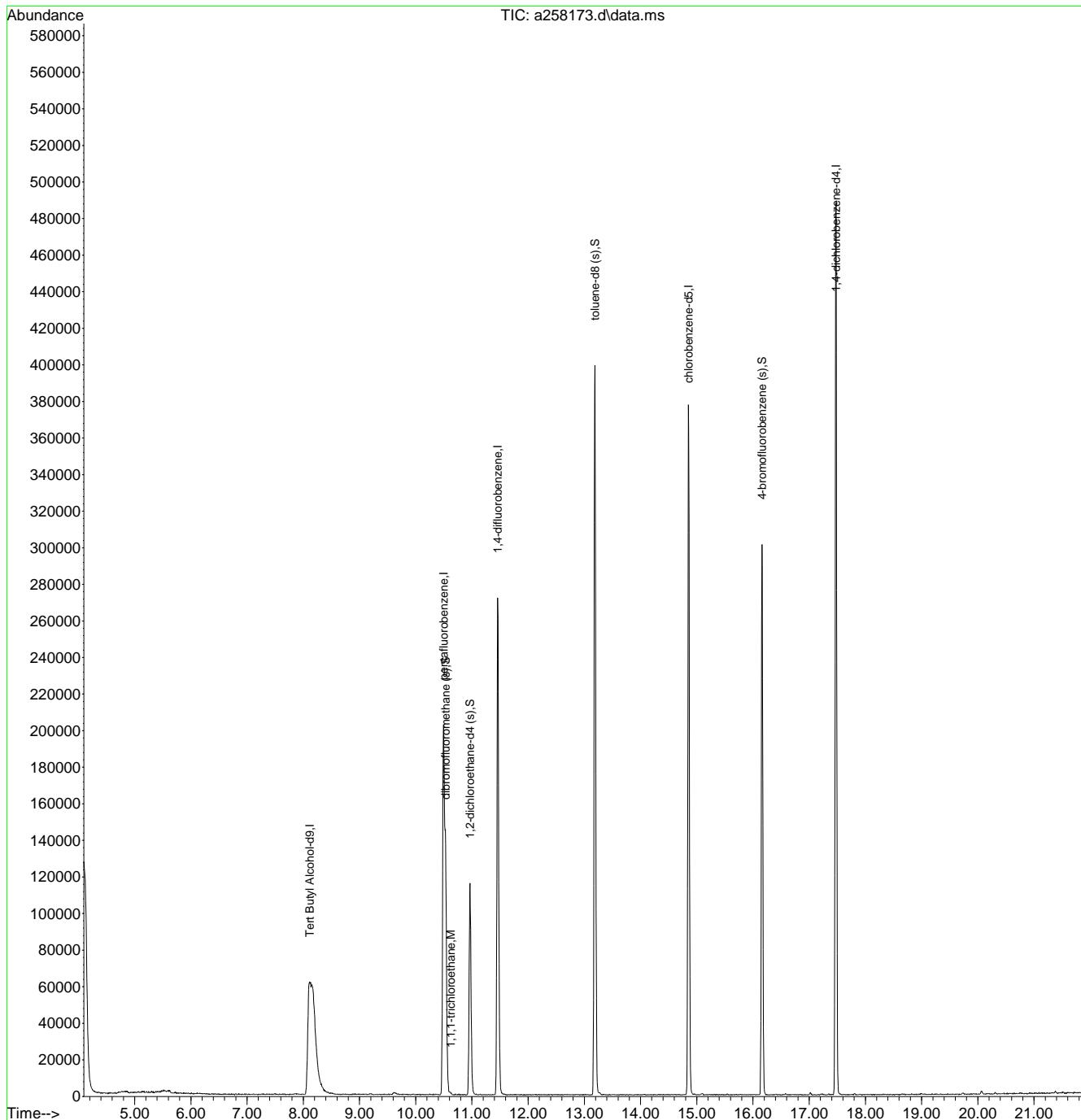
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) Tert Butyl Alcohol-d9	8.115	65	328721	500.00	ug/L	-0.02
5) pentafluorobenzene	10.495	168	178824	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.457	114	263317	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.857	117	231966	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.477	152	145406	50.00	ug/L	-0.02
<hr/>						
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.532	113	87838	44.86	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	89.72%	
53) 1,2-dichloroethane-d4 (s)	10.966	65	94205	45.89	ug/L	-0.03
Spiked Amount 50.000	Range 81 - 124		Recovery	=	91.78%	
75) toluene-d8 (s)	13.189	98	304954	46.48	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	92.96%	
99) 4-bromofluorobenzene (s)	16.159	95	105876	41.37	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	82.74%	
<hr/>						
Target Compounds						
47) 1,1,1-trichloroethane	10.621	97	1067	0.30	ug/L	# 66
<hr/>						

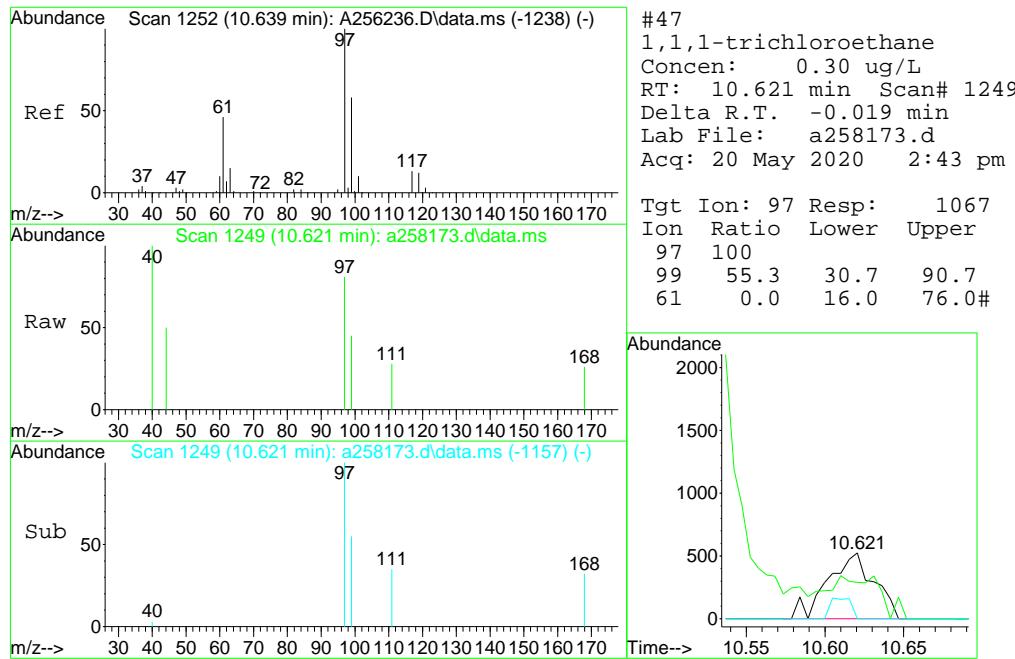
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258173.d
 Acq On : 20 May 2020 2:43 pm
 Operator : edwardd
 Sample : JD7282-1 Inst : MSA
 Misc : MS43215,VA10060,5,,,.1
 ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:02:30 2020
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258174.d
 Acq On : 20 May 2020 3:12 pm
 Operator : edwardd
 Sample : JD7282-2 Inst : MSA
 Misc : MS43215,VA10060,5,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:08:56 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

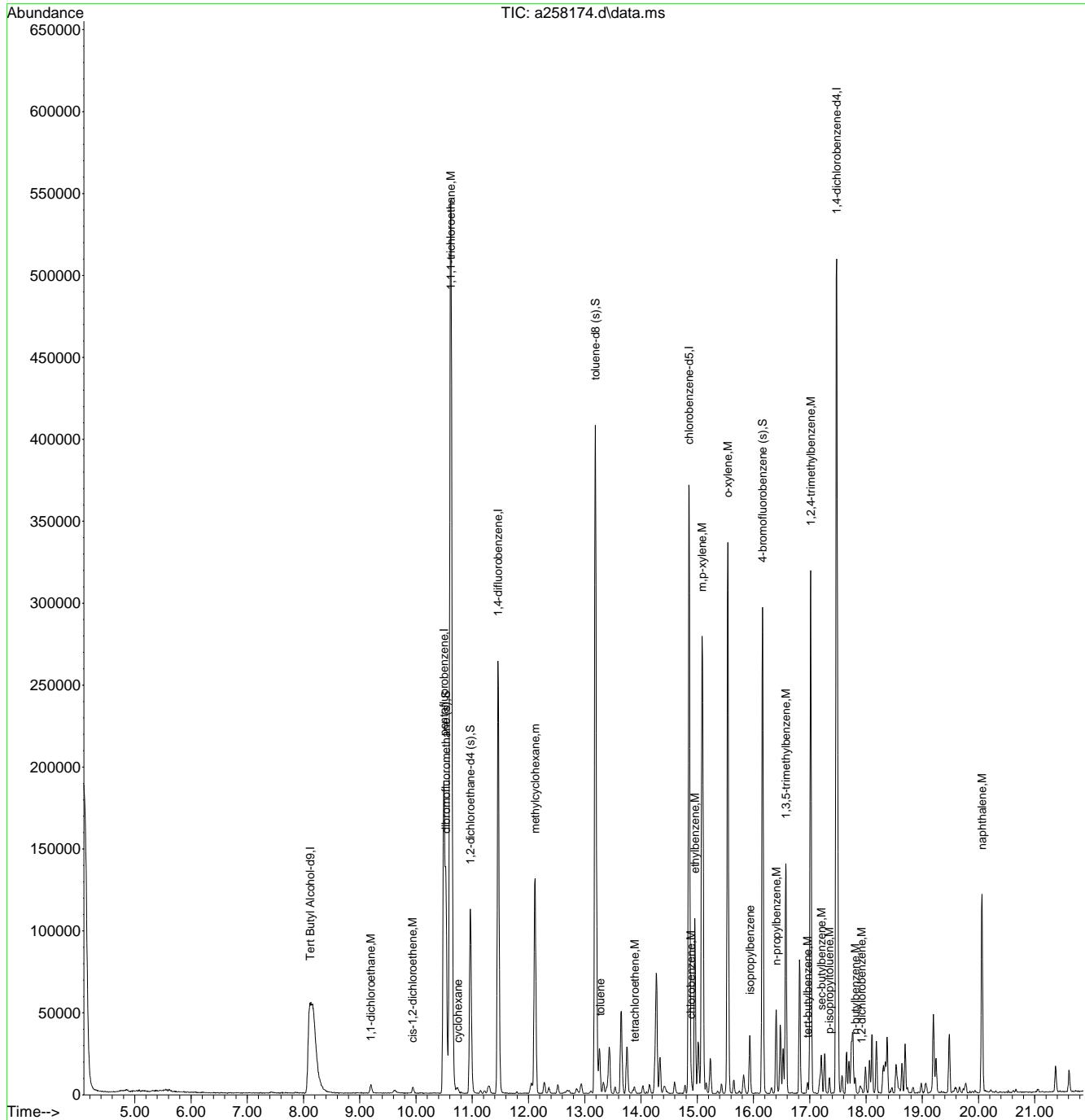
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.121	65	293985	500.00	ug/L	-0.02
5) pentafluorobenzene	10.495	168	166239	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.458	114	253445	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.857	117	227944	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.478	152	142762	50.00	ug/L	-0.02
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.532	113	84719	46.54	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	93.08%	
53) 1,2-dichloroethane-d4 (s)	10.966	65	91615	46.37	ug/L	-0.03
Spiked Amount 50.000	Range 81 - 124		Recovery	=	92.74%	
75) toluene-d8 (s)	13.189	98	300385	46.59	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	93.18%	
99) 4-bromofluorobenzene (s)	16.160	95	103602	41.23	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	82.46%	
Target Compounds						
31) 1,1-dichloroethane	9.193	63	6943	1.94	ug/L	99
37) cis-1,2-dichloroethene	9.936	96	2415	1.11	ug/L	86
46) cyclohexane	10.741	84	1761	0.54	ug/L	# 28
47) 1,1,1-trichloroethane	10.616	97	490578	148.25	ug/L	98
64) methylcyclohexane	12.117	83	63590	20.59	ug/L	98
76) toluene	13.272	92	2580	0.60	ug/L	86
81) tetrachloroethene	13.884	166	1451	0.88	ug/L	88
87) chlorobenzene	14.889	112	3217	0.73	ug/L	80
89) ethylbenzene	14.957	91	84405	11.04	ug/L	97
90) m,p-xylene	15.087	106	113571	39.71	ug/L	93
91) o-xylene	15.542	106	100782	32.72	ug/L	97
96) isopropylbenzene	15.940	105	25209	3.13	ug/L	96
104) n-propylbenzene	16.405	91	43620	4.00	ug/L	98
107) 1,3,5-trimethylbenzene	16.573	105	82005	9.87	ug/L	99
108) tert-butylbenzene	16.960	119	3456	0.49	ug/L	96
109) 1,2,4-trimethylbenzene	17.017	105	188640	23.56	ug/L	100
110) sec-butylbenzene	17.206	105	17468	1.65	ug/L	90
112) p-isopropyltoluene	17.347	119	6471	0.76	ug/L	90
114) 1,2-dichlorobenzene	17.922	146	1646	0.38	ug/L	96
115) n-butylbenzene	17.812	92	3175	0.72	ug/L	89
121) naphthalene	20.061	128	109250	10.26	ug/L	98

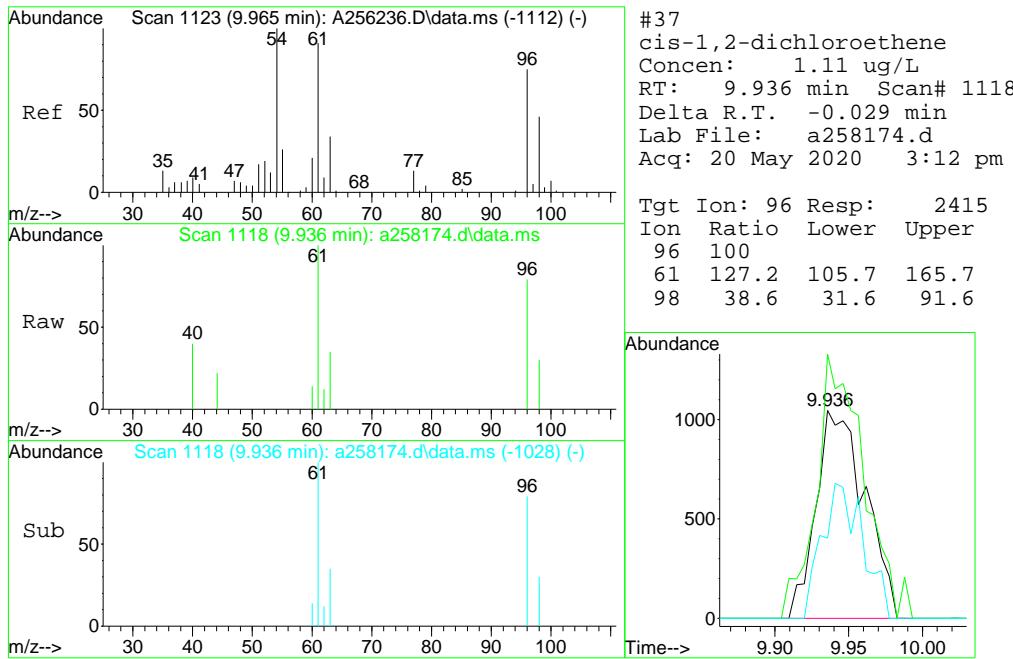
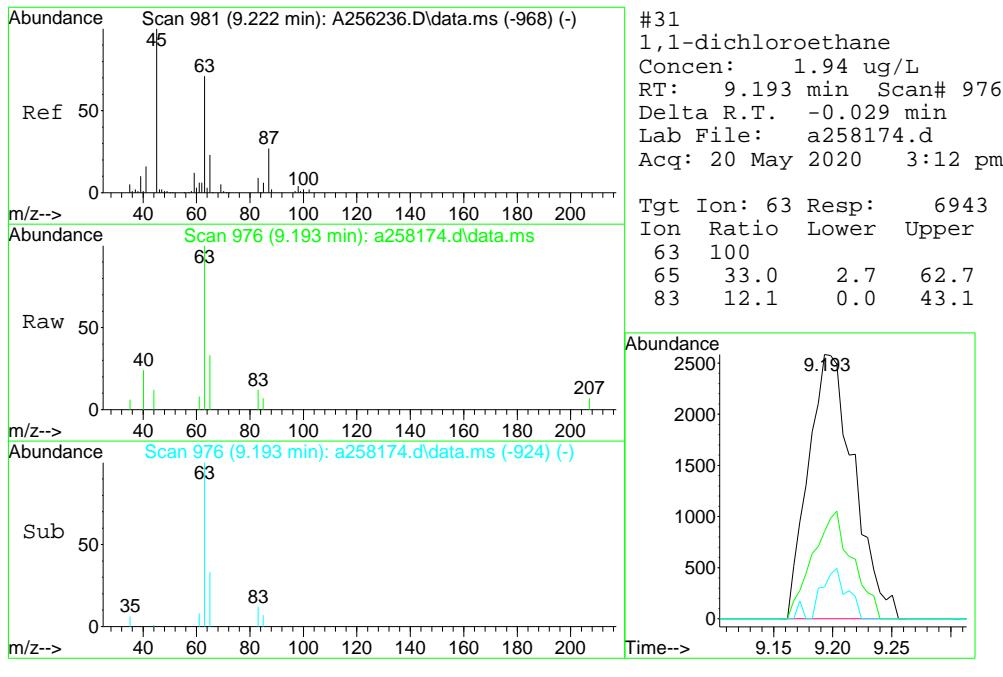
(#) = qualifier out of range (m) = manual integration (+) = signals summed

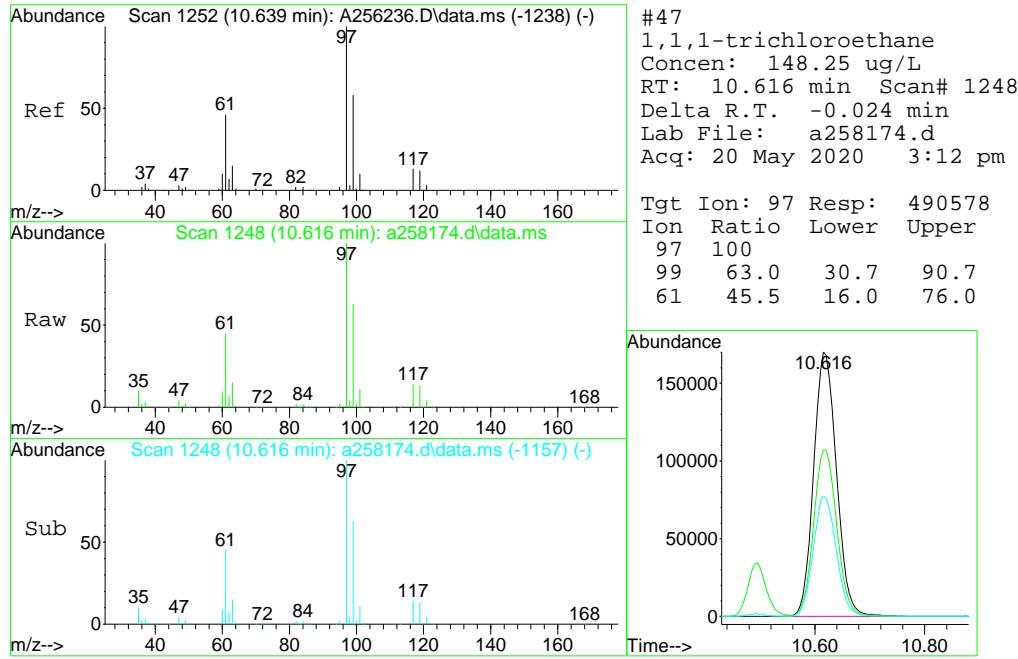
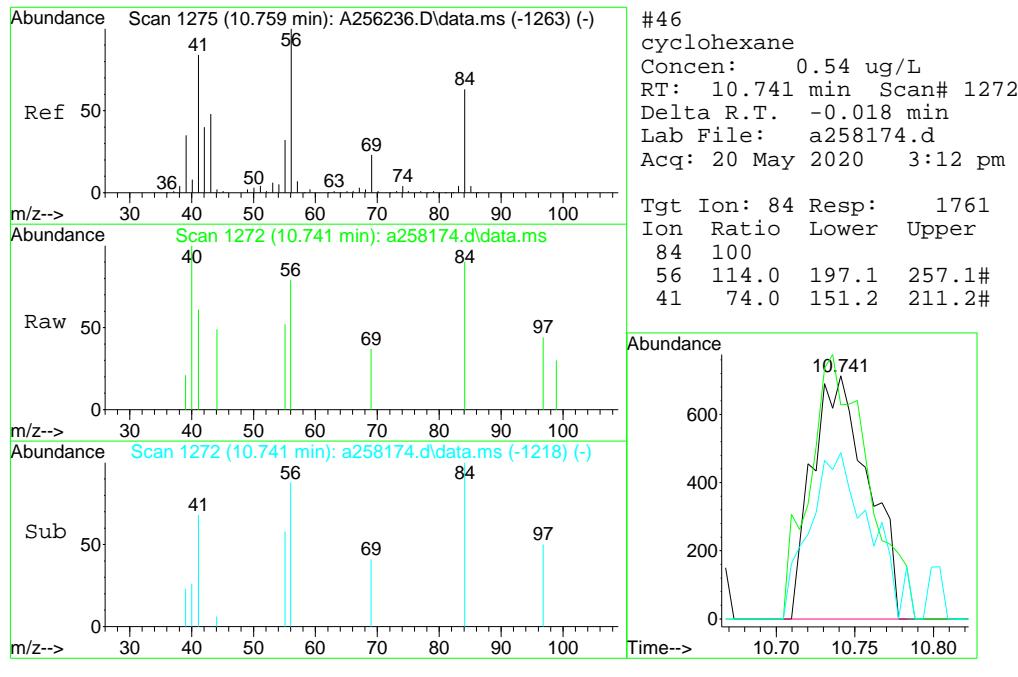
Quantitation Report (QT Reviewed)

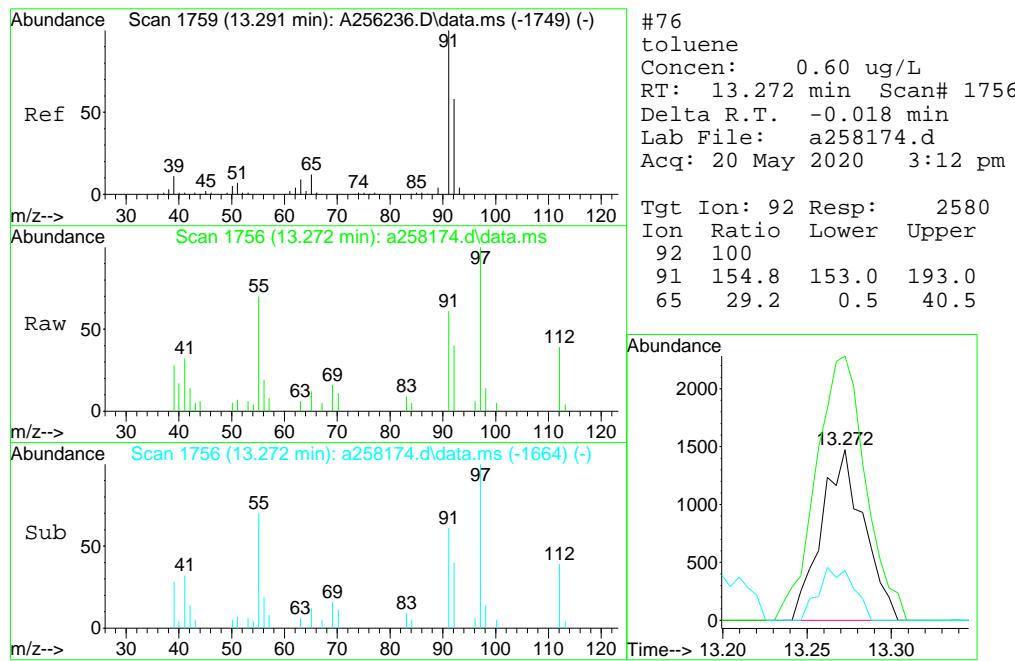
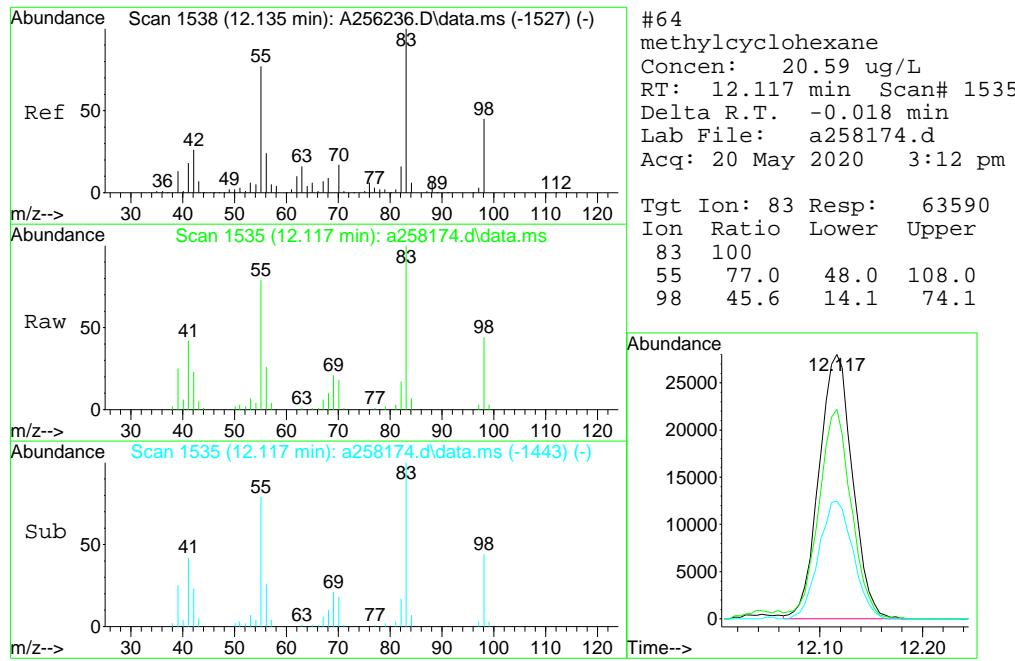
Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258174.d
 Acq On : 20 May 2020 3:12 pm
 Operator : edwardd
 Sample : JD7282-2 Inst : MSA
 Misc : MS43215,VA10060,5,,,1
 ALS Vial : 14 Sample Multiplier: 1

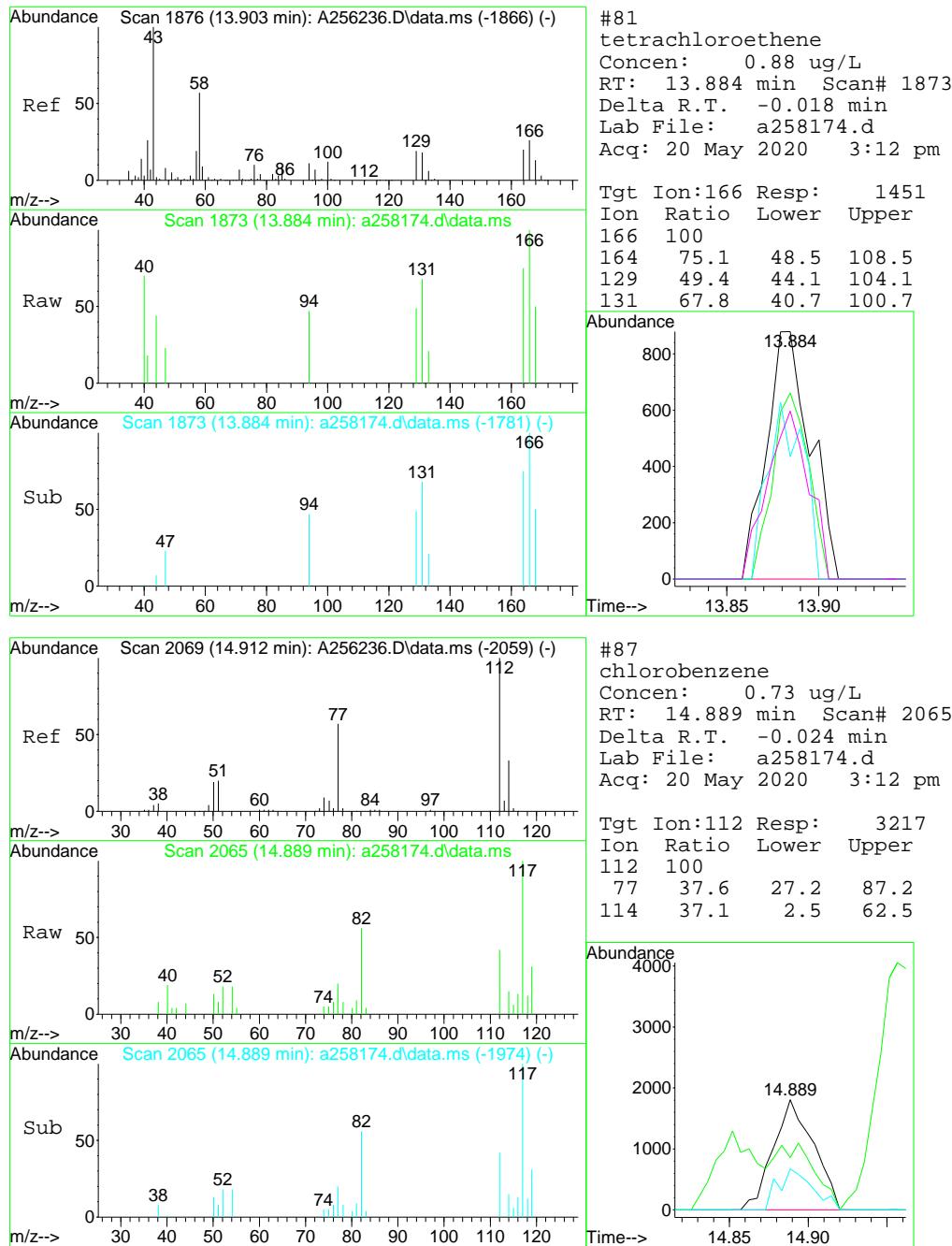
Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:08:56 2020
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

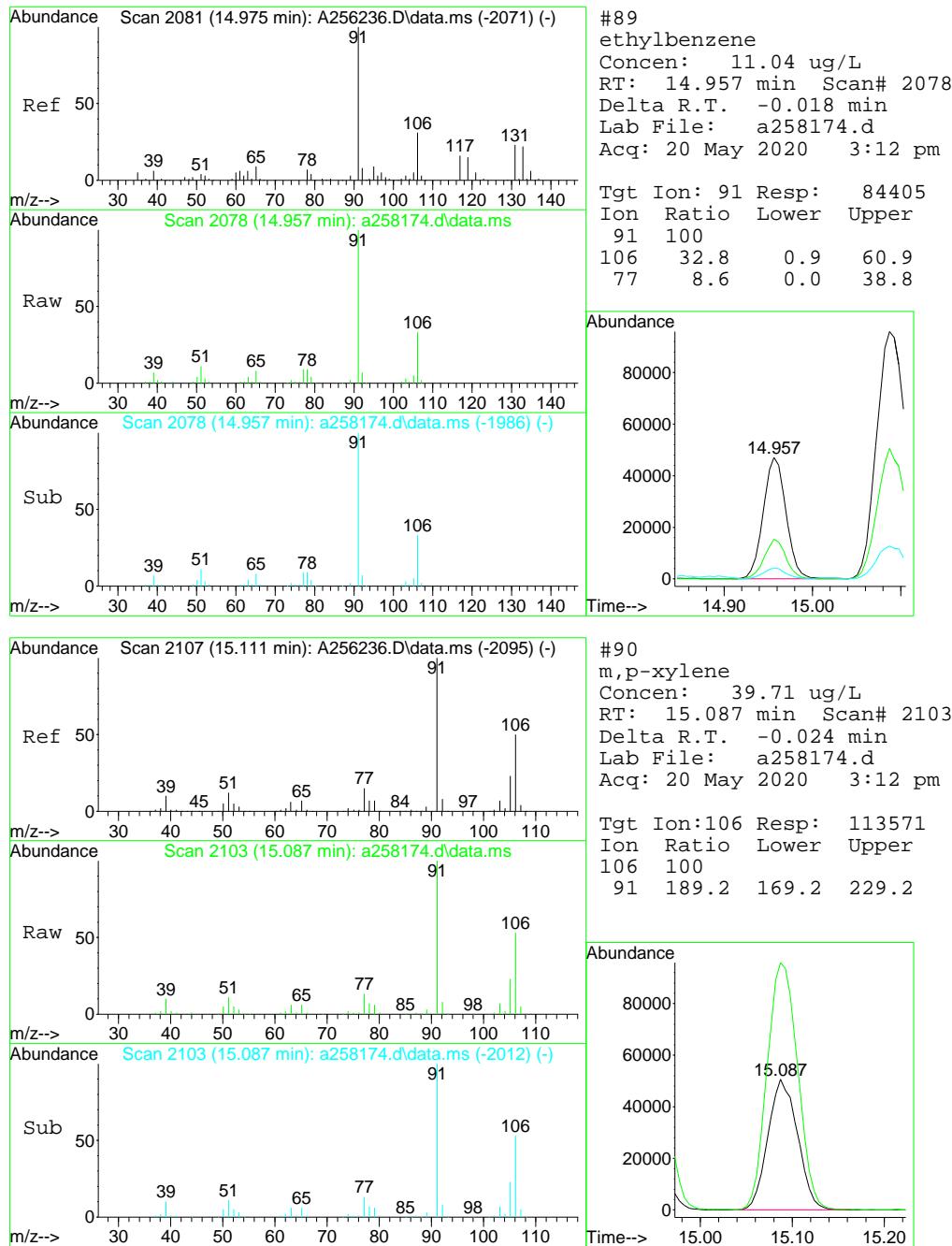


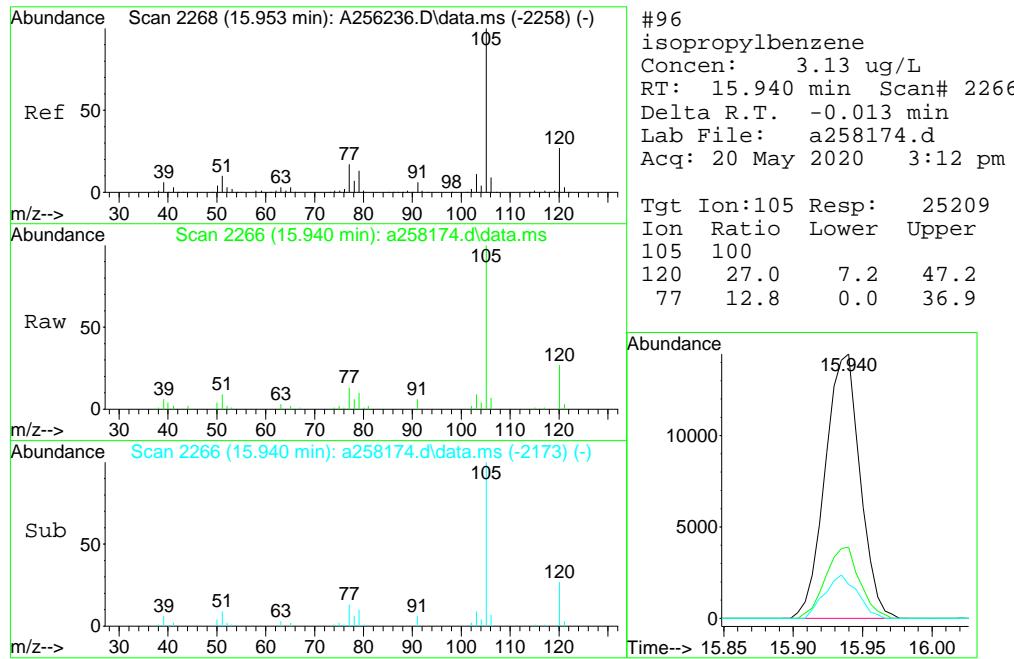
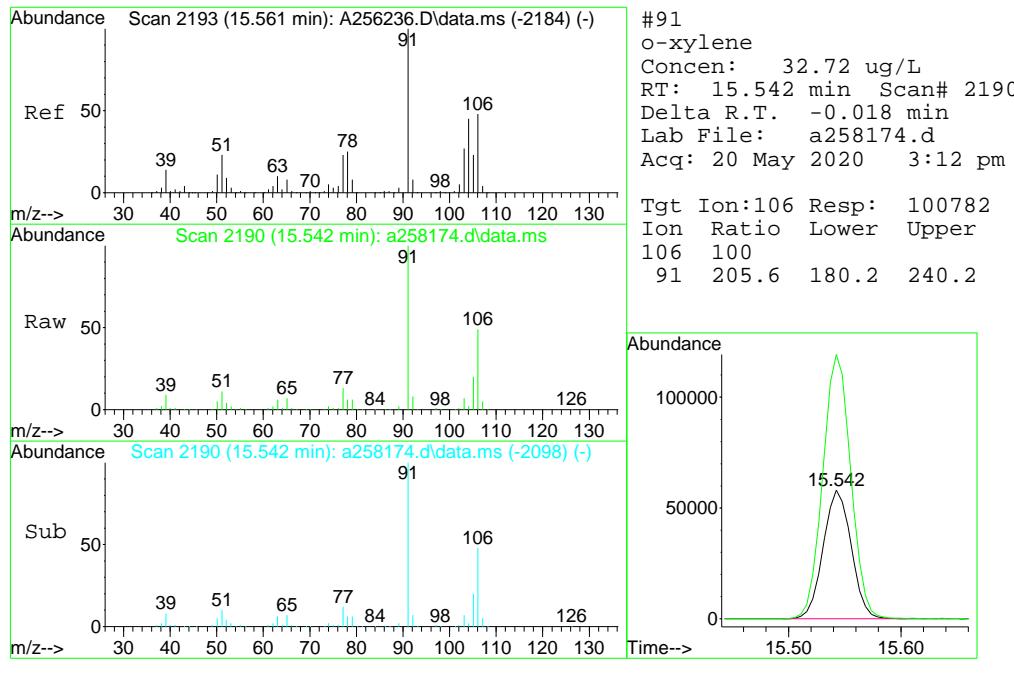


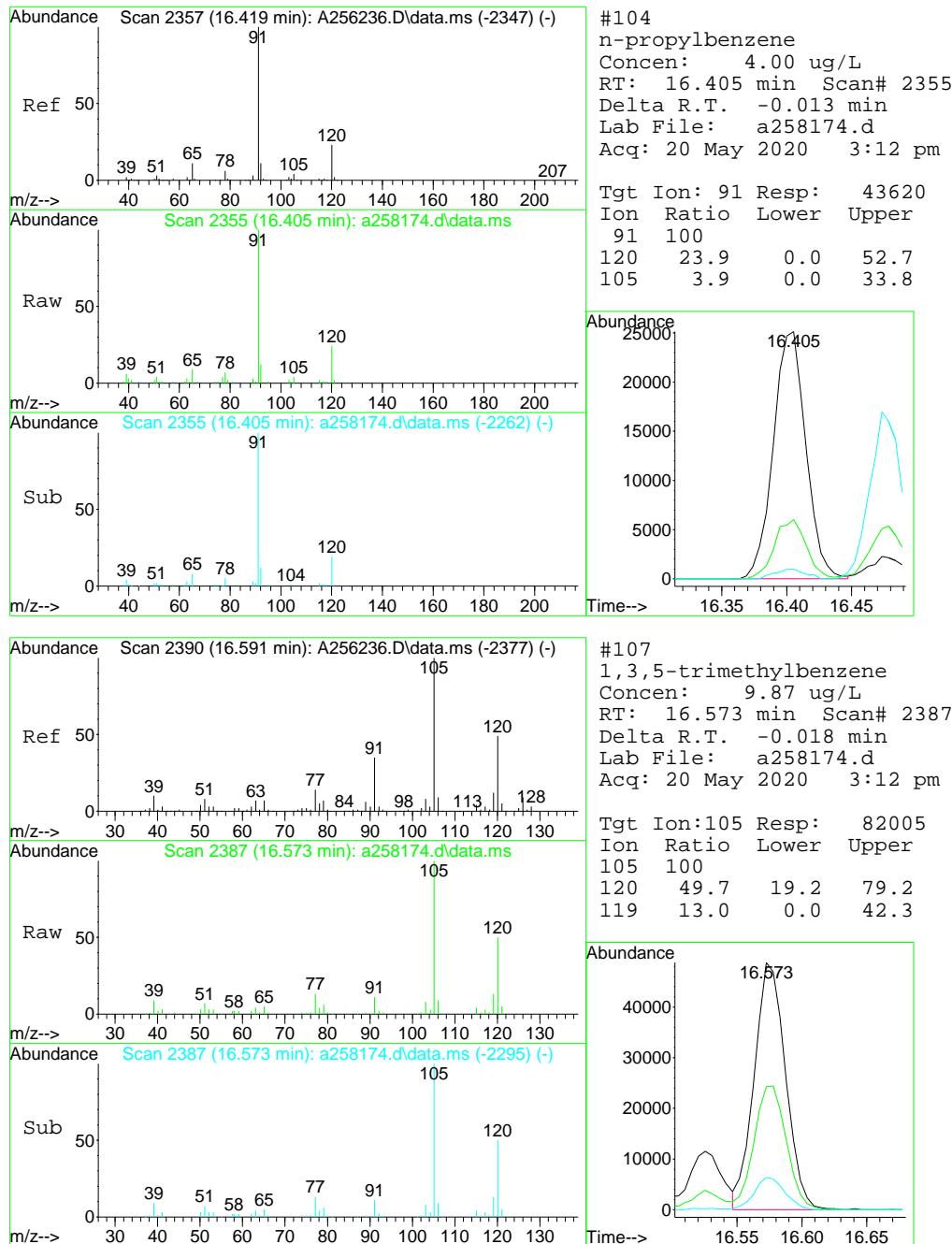


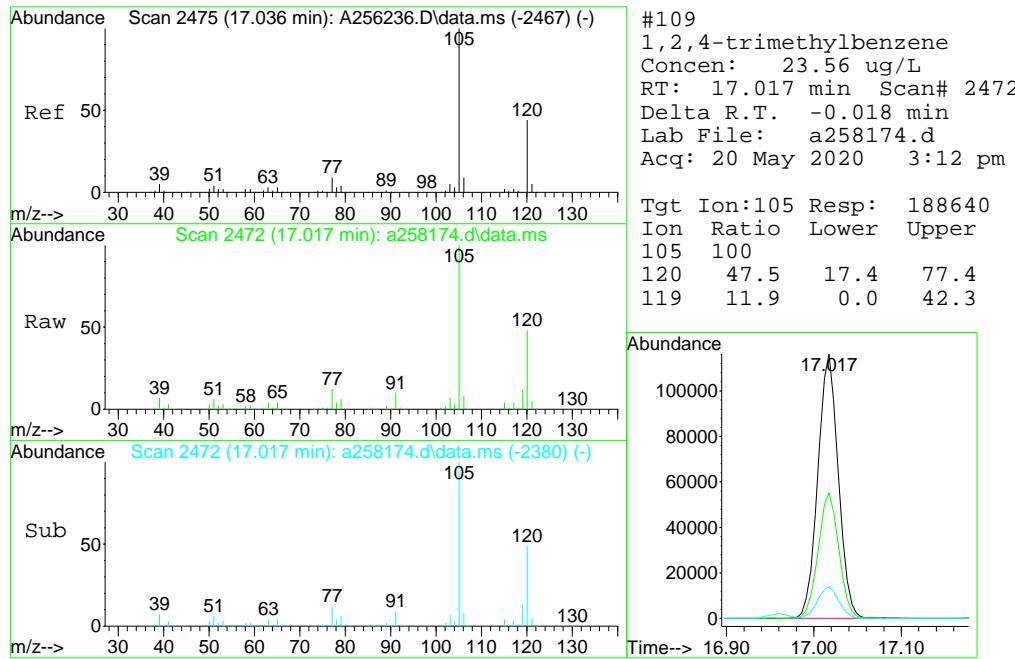
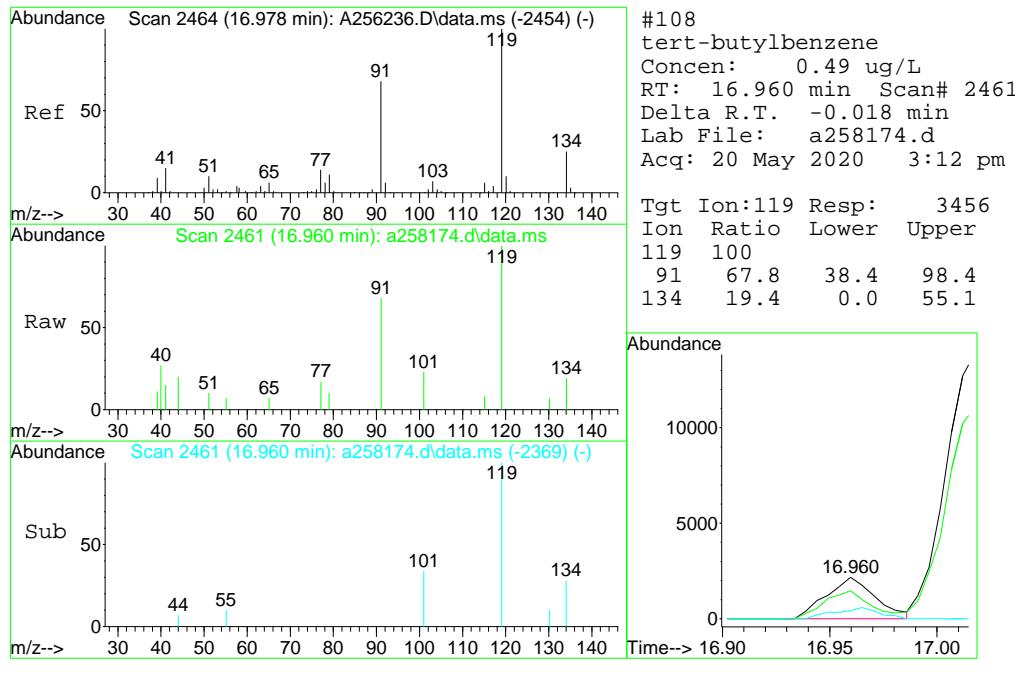


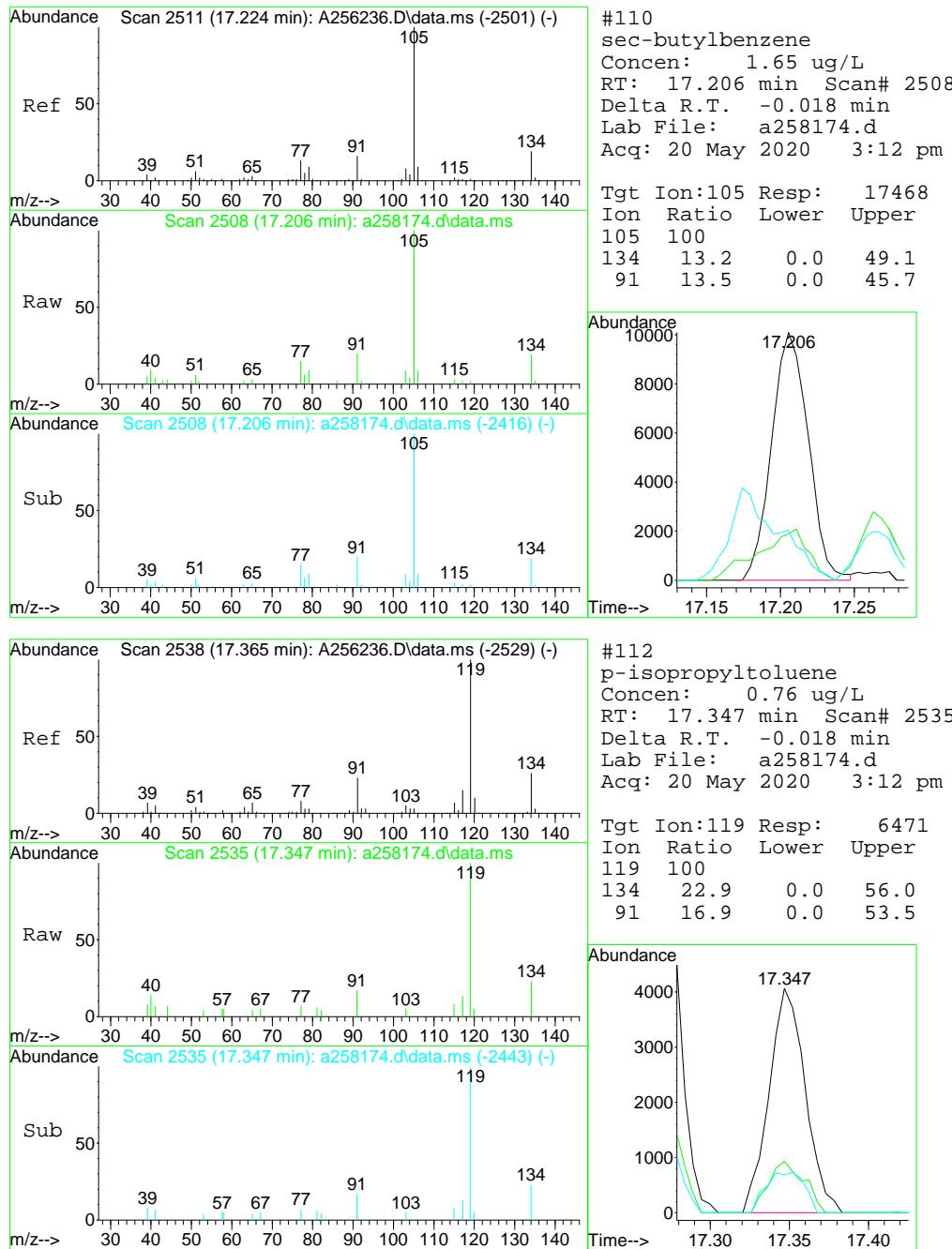


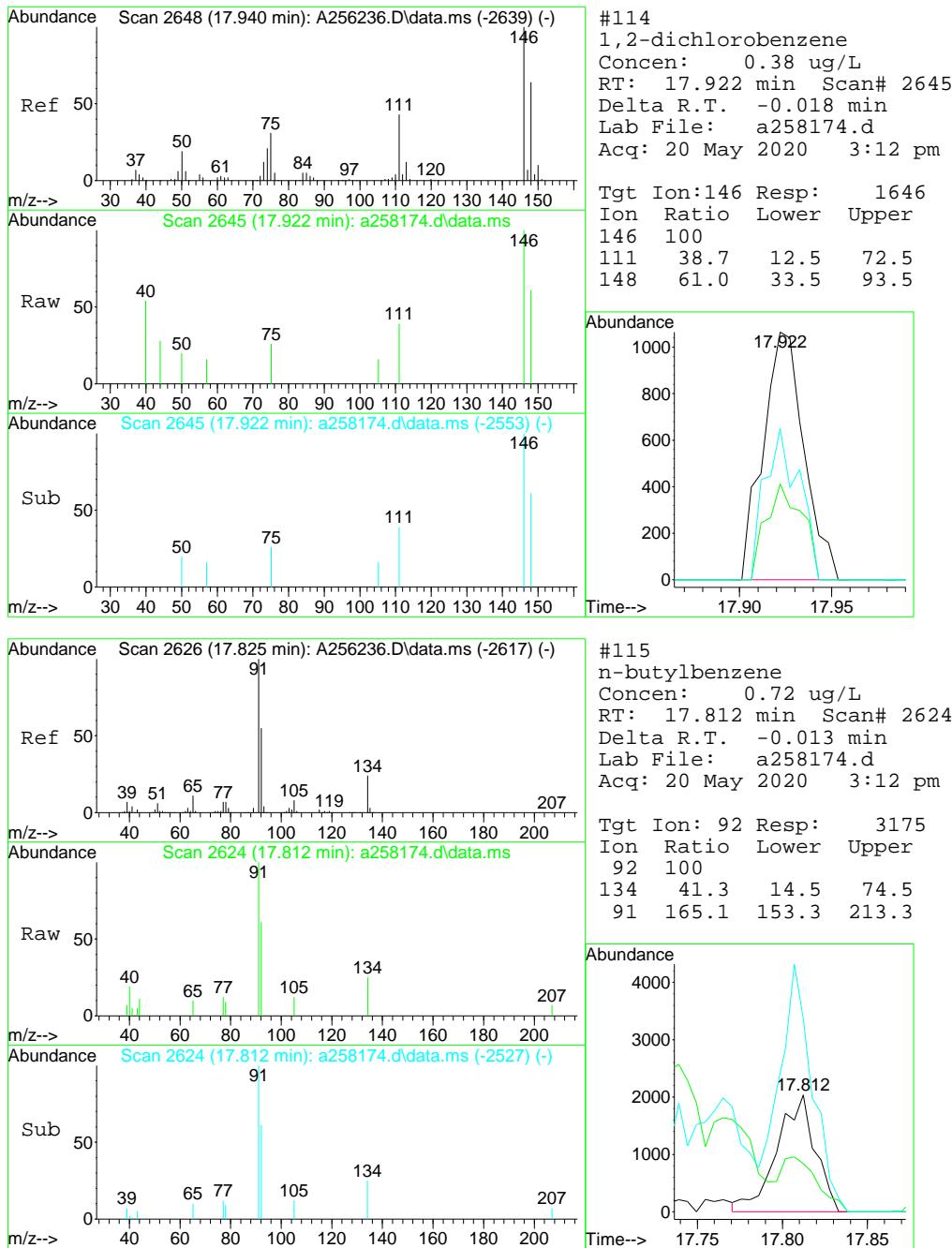


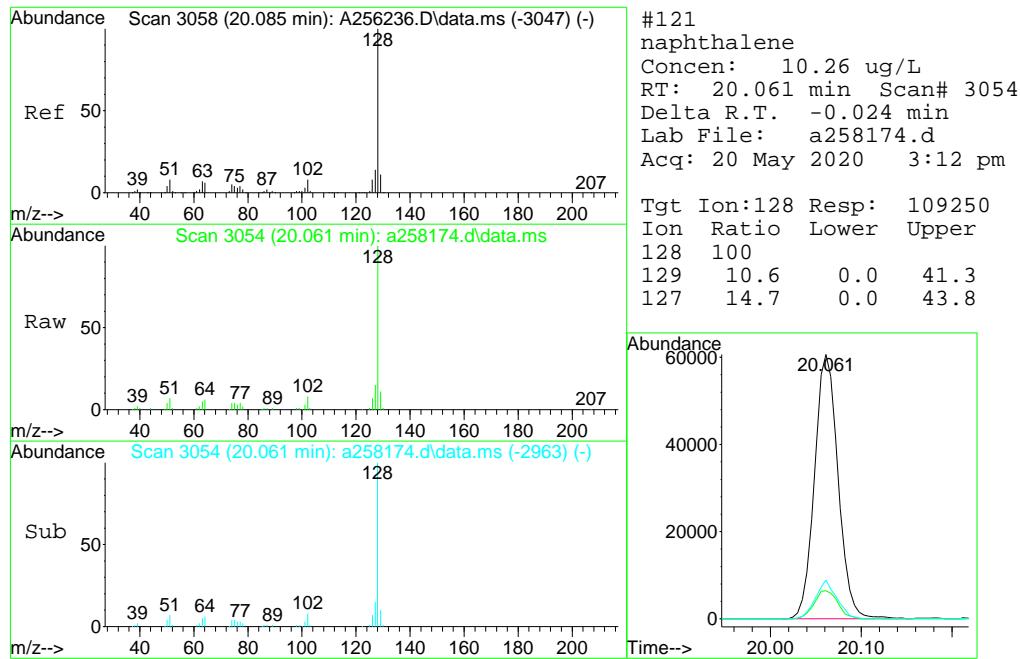












Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67679.d
 Acq On : 21 May 2020 4:06 pm
 Operator : ROBERTS
 Sample : JD7282-3 Inst : MS2V
 Misc : MS43215,V2V2800,5,,,10
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 22:02:19 2020
 Quant Title : SW 846 Method 8260C, RxI-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

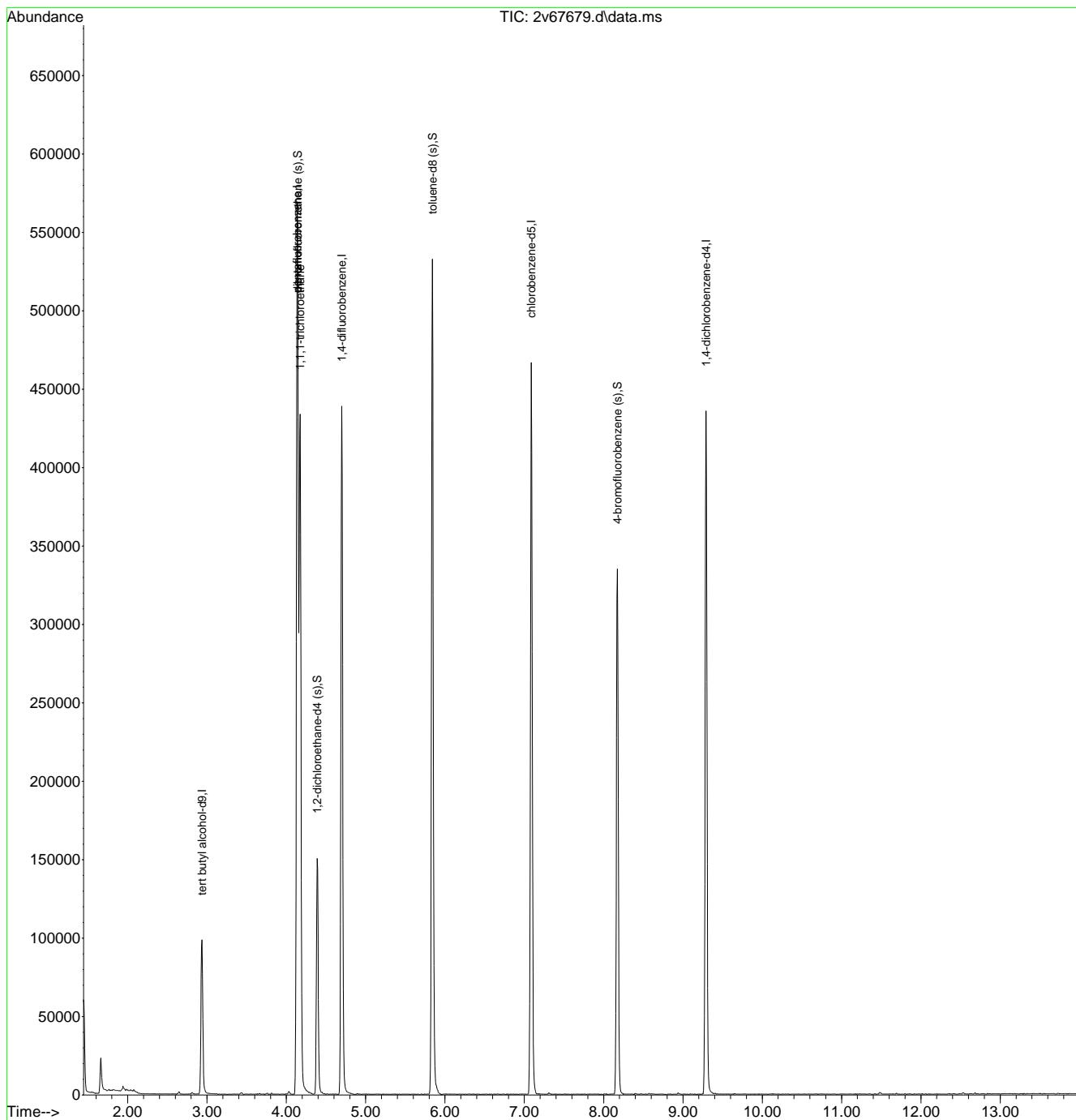
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	97175	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	233628	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.698	114	322322	50.00	ug/L	0.00
74) chlorobenzene-d5	7.089	117	269329	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.291	152	123322	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	100975	48.53	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	97.06%	
53) 1,2-dichloroethane-d4 (s)	4.389	65	87165	44.77	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	89.54%	
75) toluene-d8 (s)	5.841	98	338763	49.34	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	98.68%	
99) 4-bromofluorobenzene (s)	8.174	95	109428	48.15	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	96.30%	
<hr/>						
Target Compounds						
46) 1,1,1-trichloroethane	4.174	97	242796	67.35	ug/L	97
<hr/>						

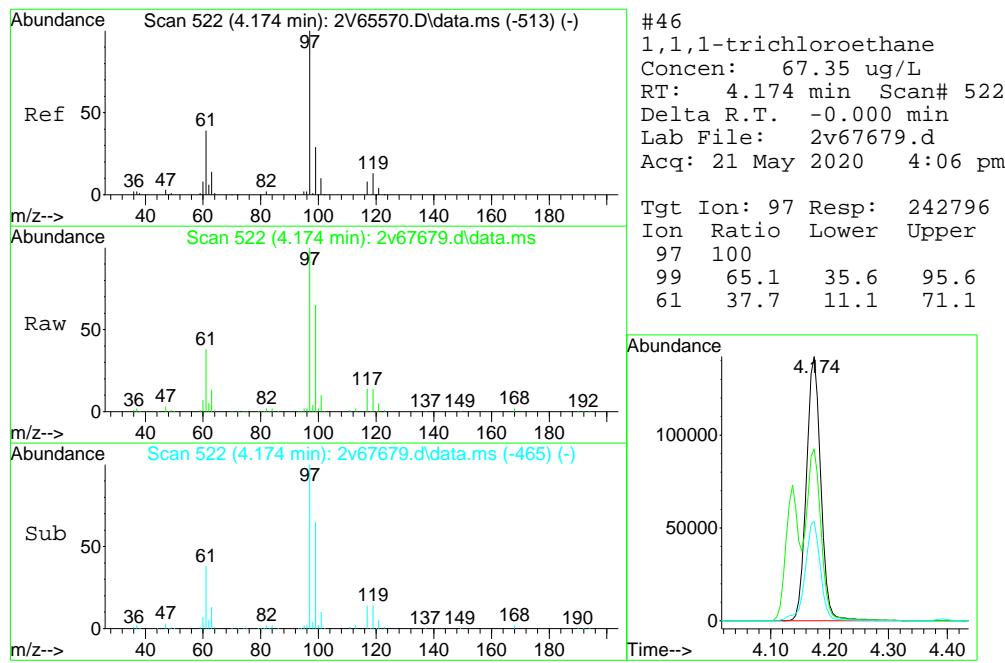
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
Data File : 2v67679.d
Acq On : 21 May 2020 4:06 pm
Operator : ROBERTS
Sample : JD7282-3
Misc : MS43215,V2V2800,5,,,10
ALS Vial : 15 Sample Multiplier: 1
Inst : MS2V

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
Quant Results File: M2V2712.RES
Quant Time: May 21 22:02:19 2020
Quant Title : SW 846 Method 8260C, RxI-624 (30m x 0.25mm x 1.4um)
QLast Update : Mon Mar 09 10:12:58 2020
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258175.d
 Acq On : 20 May 2020 3:40 pm
 Operator : edwardd
 Sample : JD7282-3 Inst : MSA
 Misc : MS43215,VA10060,5,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:09:58 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

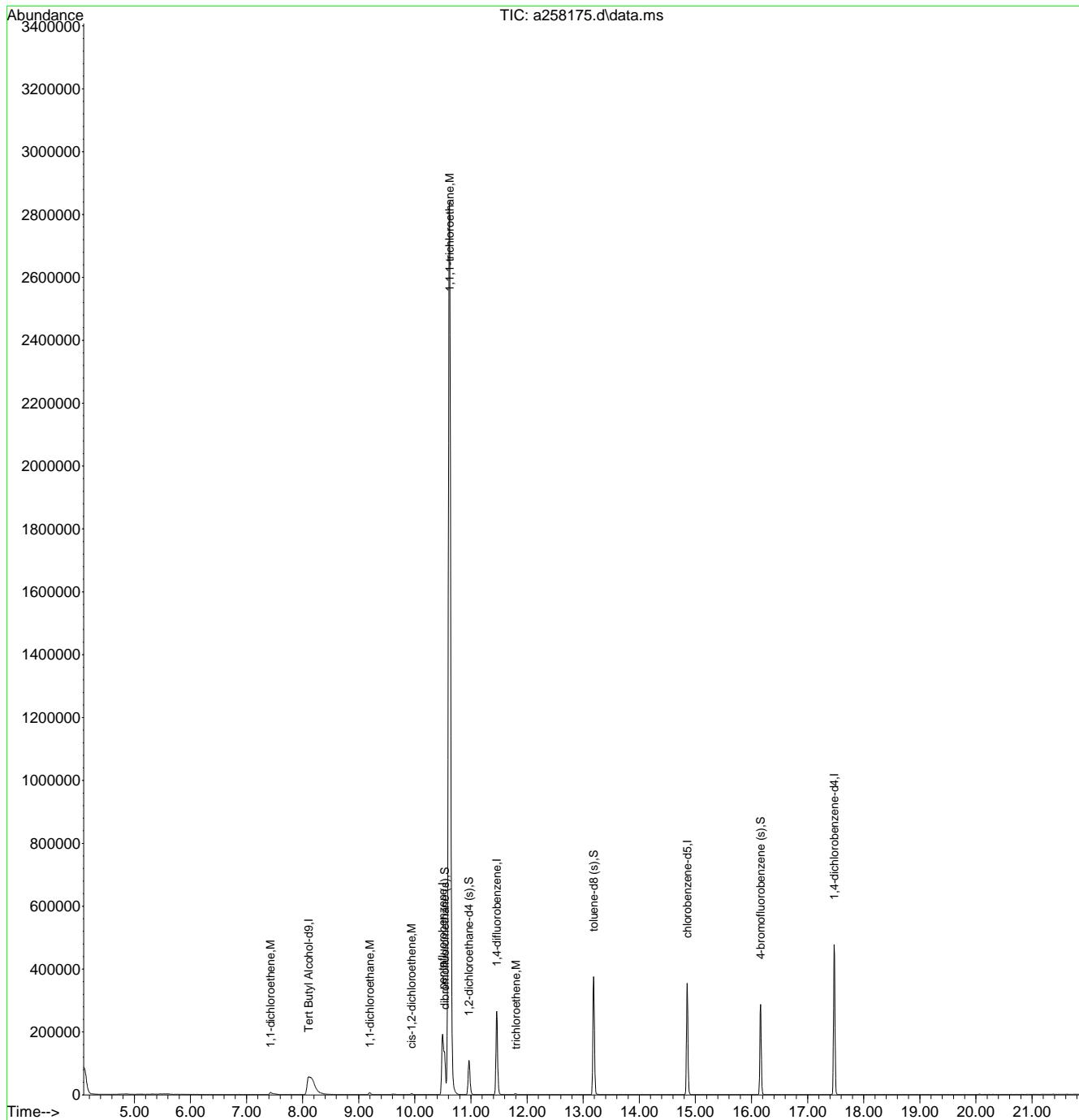
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) Tert Butyl Alcohol-d9	8.107	65	298402	500.00	ug/L	-0.03
5) pentafluorobenzene	10.492	168	167774	50.00	ug/L	-0.03
52) 1,4-difluorobenzene	11.459	114	246780	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.854	117	215869	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.474	152	137524	50.00	ug/L	-0.02
<hr/>						
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.533	113	83598	45.50	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery =	91.00%		
53) 1,2-dichloroethane-d4 (s)	10.962	65	88288	45.89	ug/L	-0.03
Spiked Amount 50.000	Range 81 - 124		Recovery =	91.78%		
75) toluene-d8 (s)	13.185	98	281311	46.07	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery =	92.14%		
99) 4-bromofluorobenzene (s)	16.161	95	99165	40.97	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery =	81.94%		
<hr/>						
Target Compounds						
18) 1,1-dichloroethene	7.427	96	7153	3.62	ug/L	95
31) 1,1-dichloroethane	9.195	63	9117	2.53	ug/L	98
37) cis-1,2-dichloroethene	9.942	96	2295	1.04	ug/L	90
47) 1,1,1-trichloroethane	10.617	97	2498062	748.02	ug/L	96
62) trichloroethene	11.799	95	1354	0.84	ug/L	94
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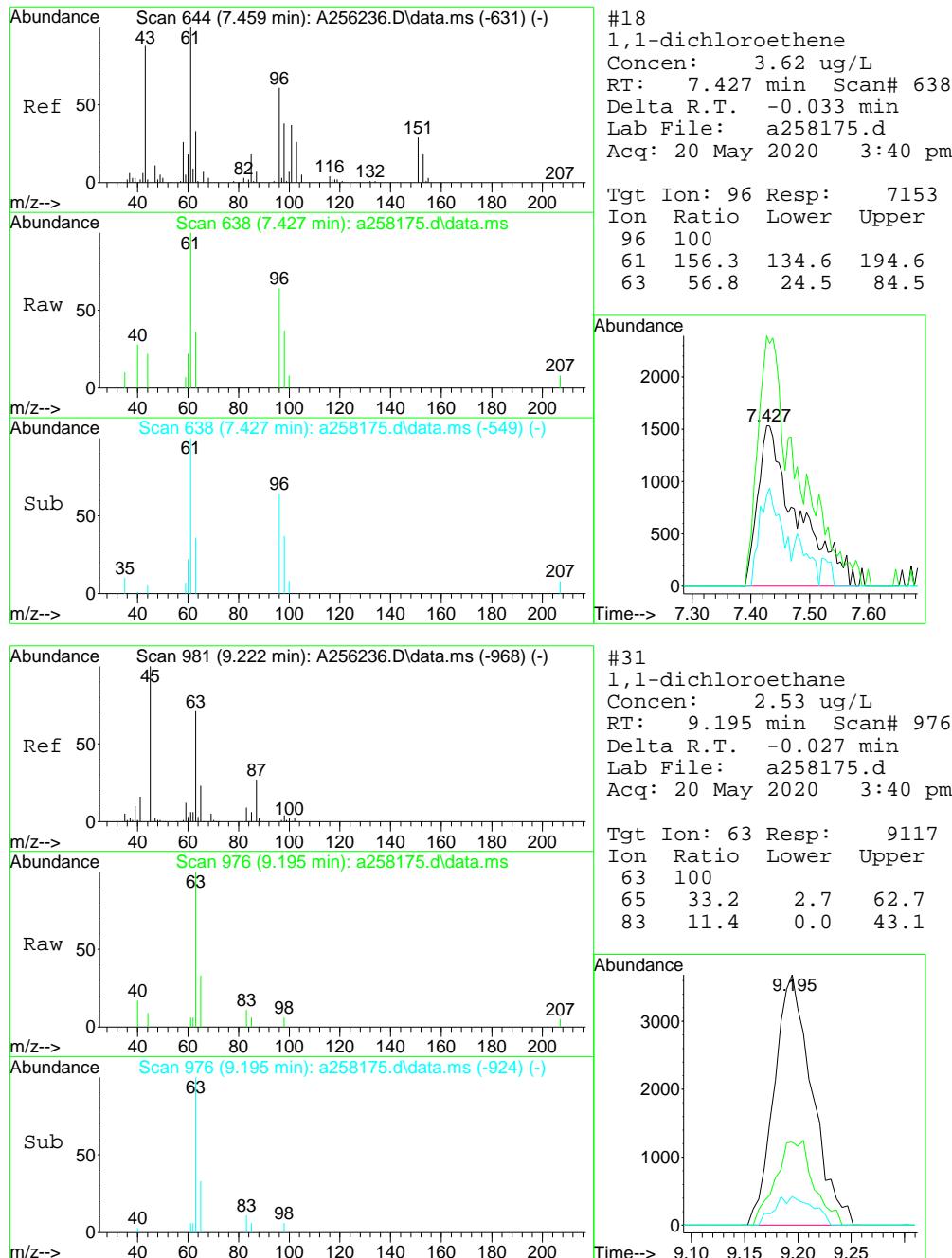
(#) = qualifier out of range (m) = manual integration (+) = signals summed

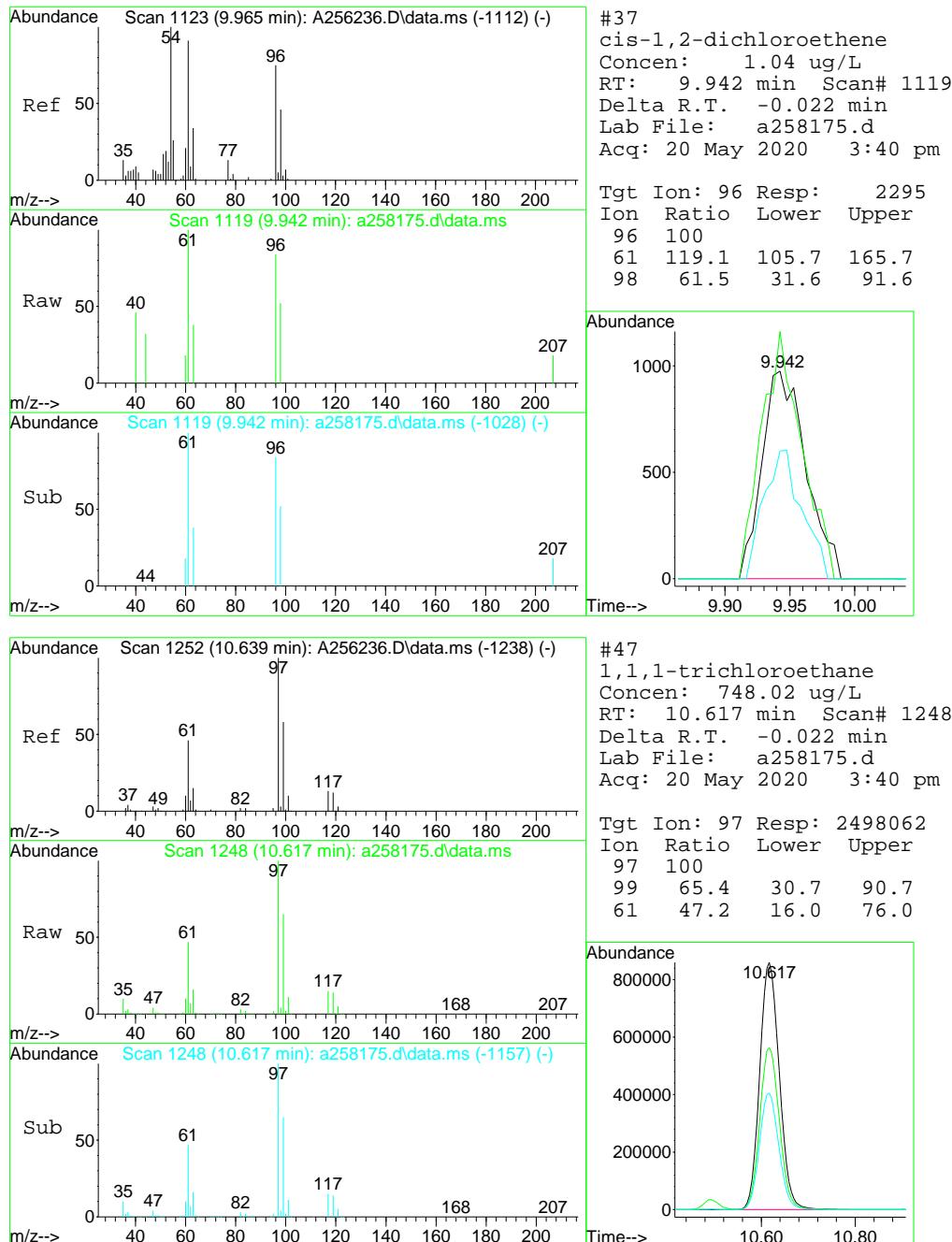
Quantitation Report (QT Reviewed)

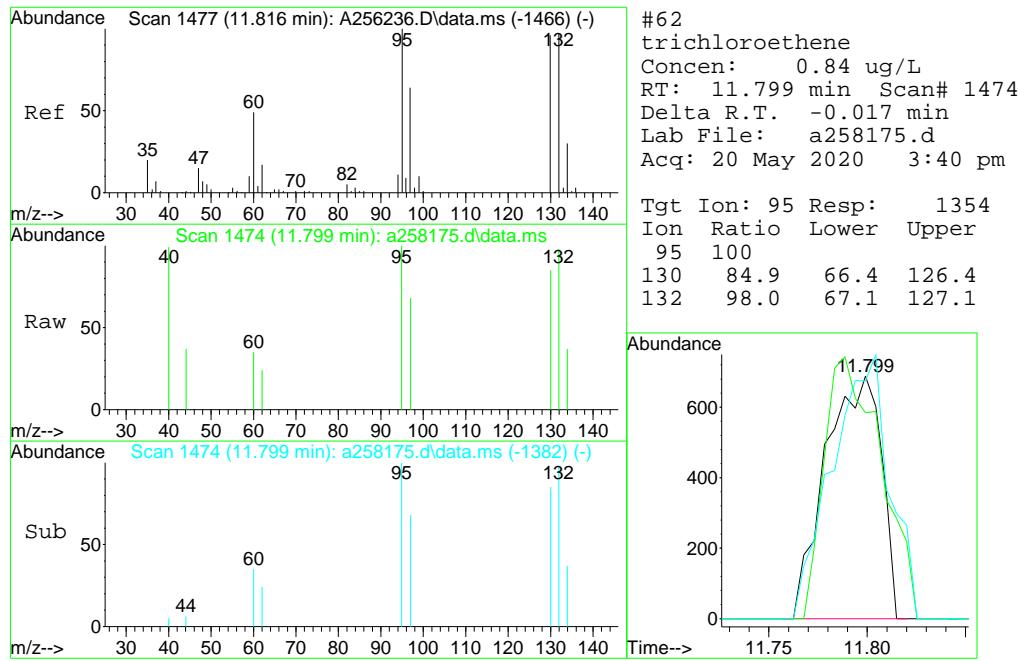
Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258175.d
 Acq On : 20 May 2020 3:40 pm
 Operator : edwardd
 Sample : JD7282-3 Inst : MSA
 Misc : MS43215,VA10060,5,,,.1
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:09:58 2020
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration









Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67680.d
 Acq On : 21 May 2020 4:32 pm
 Operator : ROBERTS
 Sample : JD7282-4 Inst : MS2V
 Misc : MS43215,V2V2800,5,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 22:02:56 2020
 Quant Title : SW 846 Method 8260C, Rx-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

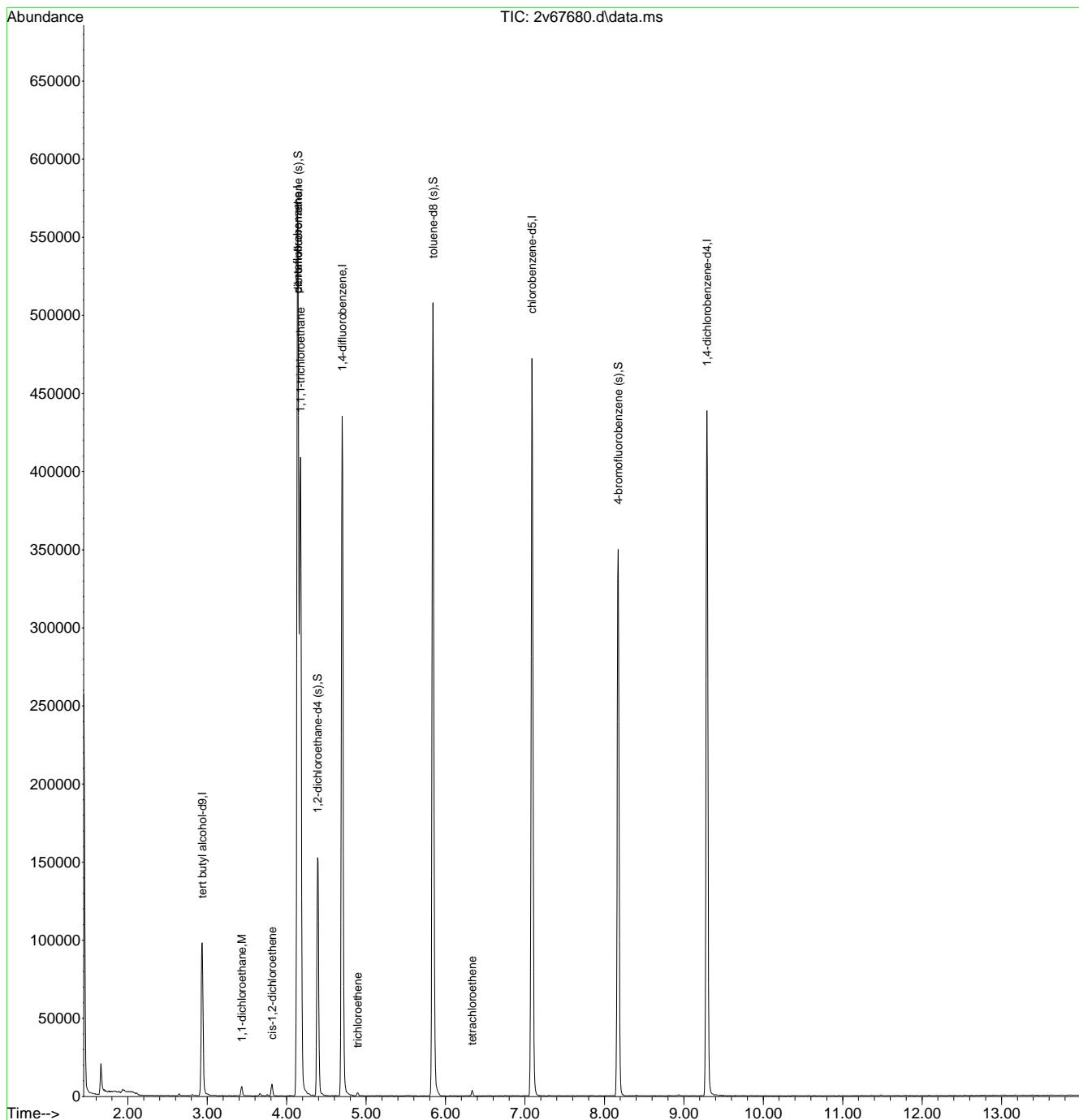
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	97401	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	223888	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.698	114	323723	50.00	ug/L	0.00
74) chlorobenzene-d5	7.089	117	275191	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.291	152	126013	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	102014	51.16	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	102.32%	
53) 1,2-dichloroethane-d4 (s)	4.389	65	91713	46.90	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	93.80%	
75) toluene-d8 (s)	5.841	98	316462	45.11	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	90.22%	
99) 4-bromofluorobenzene (s)	8.174	95	116719	50.26	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.52%	
<hr/>						
Target Compounds						
31) 1,1-dichloroethane	3.434	63	4789	1.47	ug/L	94
38) cis-1,2-dichloroethene	3.817	96	3069	1.37	ug/L	86
46) 1,1,1-trichloroethane	4.174	97	224762	65.06	ug/L	99
61) trichloroethene	4.892	95	788	0.36	ug/L	82
81) tetrachloroethene	6.334	164	717	0.36	ug/L #	59

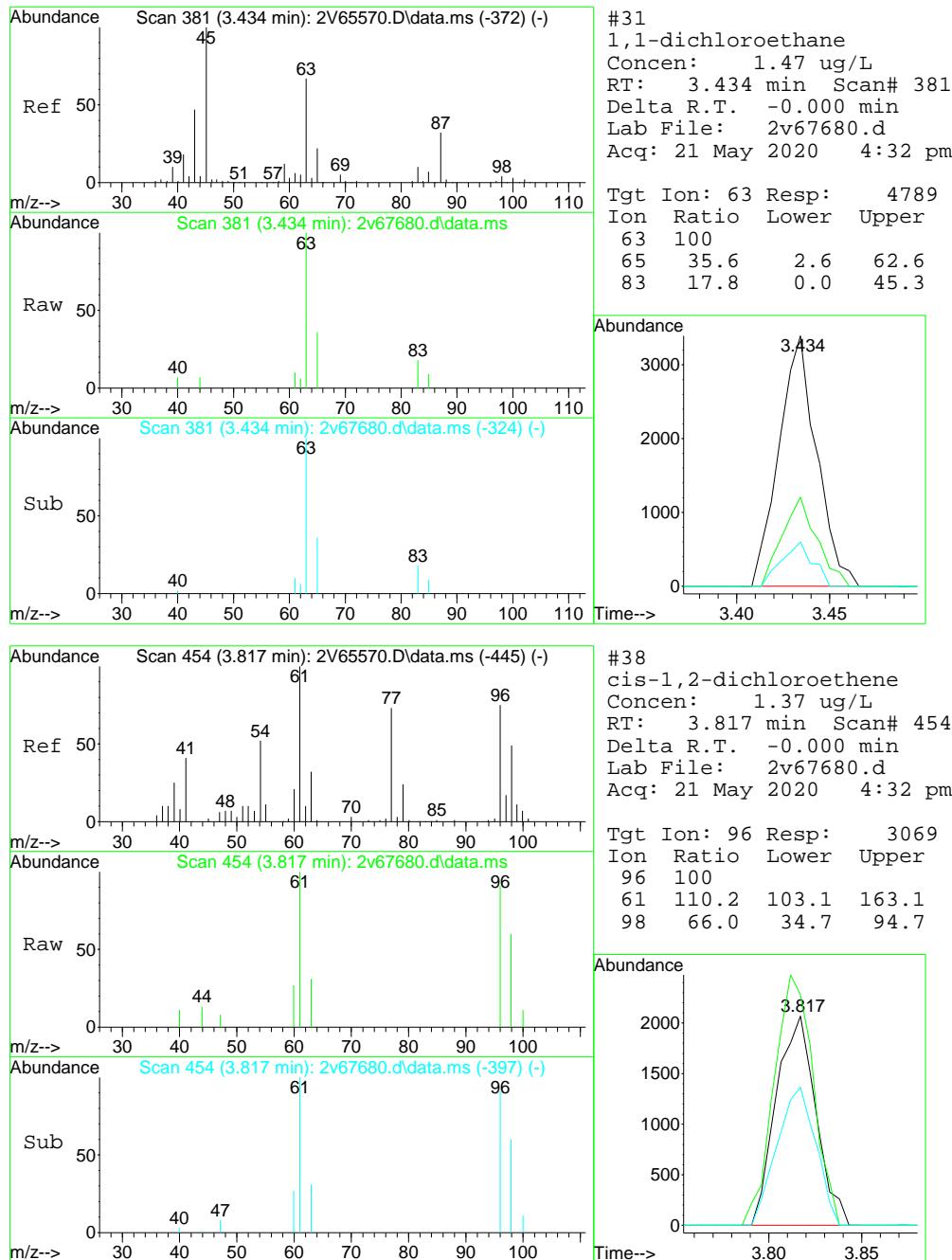
(#) = qualifier out of range (m) = manual integration (+) = signals summed

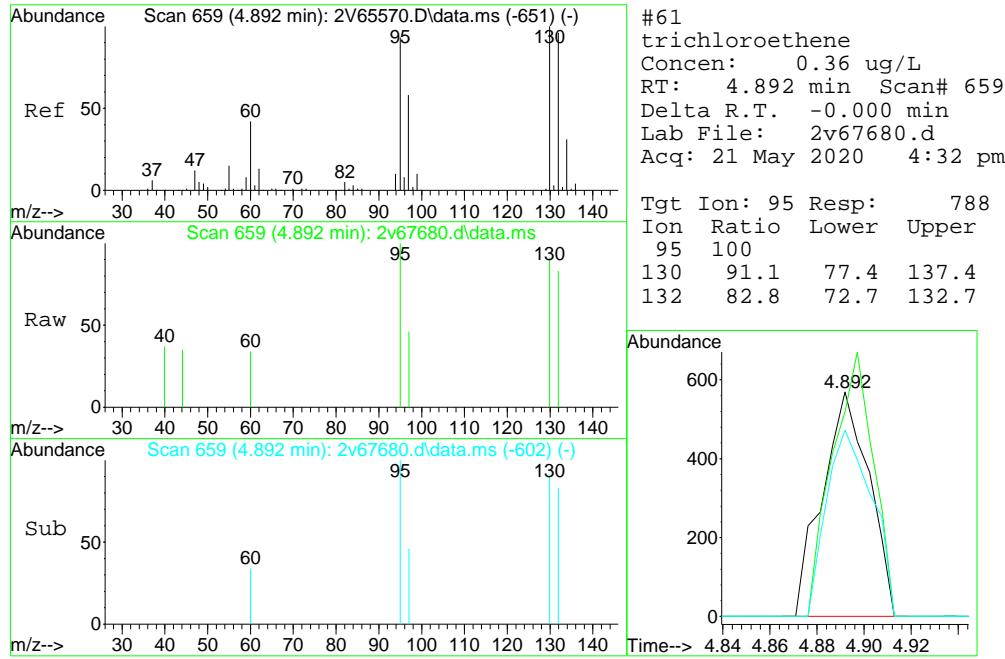
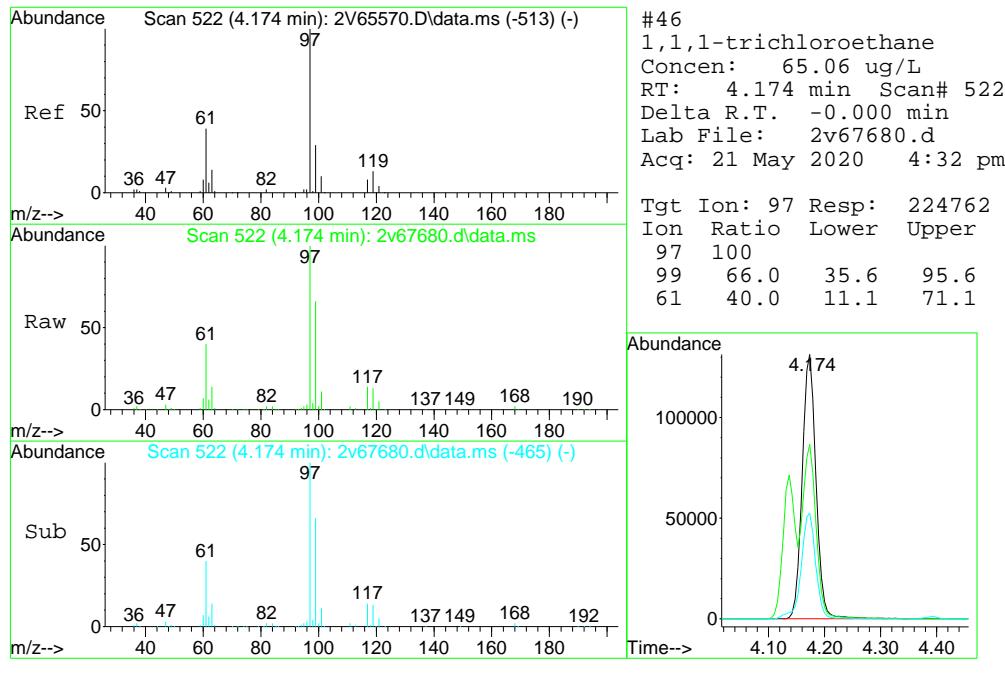
Quantitation Report (QT Reviewed)

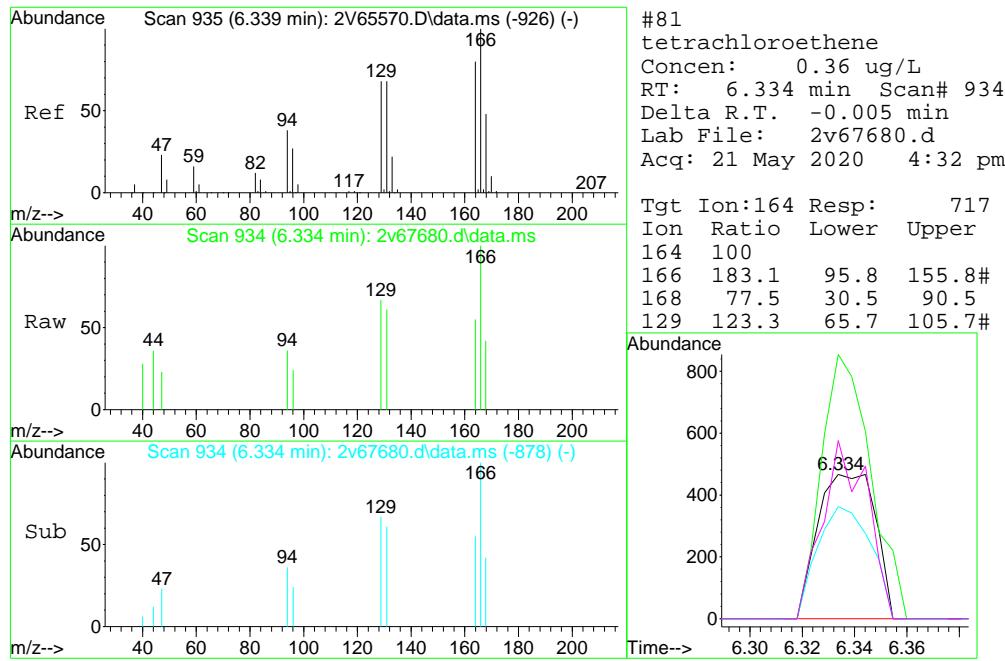
Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67680.d
 Acq On : 21 May 2020 4:32 pm
 Operator : ROBERTS
 Sample : JD7282-4
 Misc : MS43215,V2V2800,5,,,1
 ALS Vial : 16 Sample Multiplier: 1
 Inst : MS2V

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 22:02:56 2020
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration









Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258177.d
 Acq On : 20 May 2020 4:37 pm
 Operator : edwardd
 Sample : JD7282-5 Inst : MSA
 Misc : MS43215,VA10060,5,,,
 ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:49:41 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

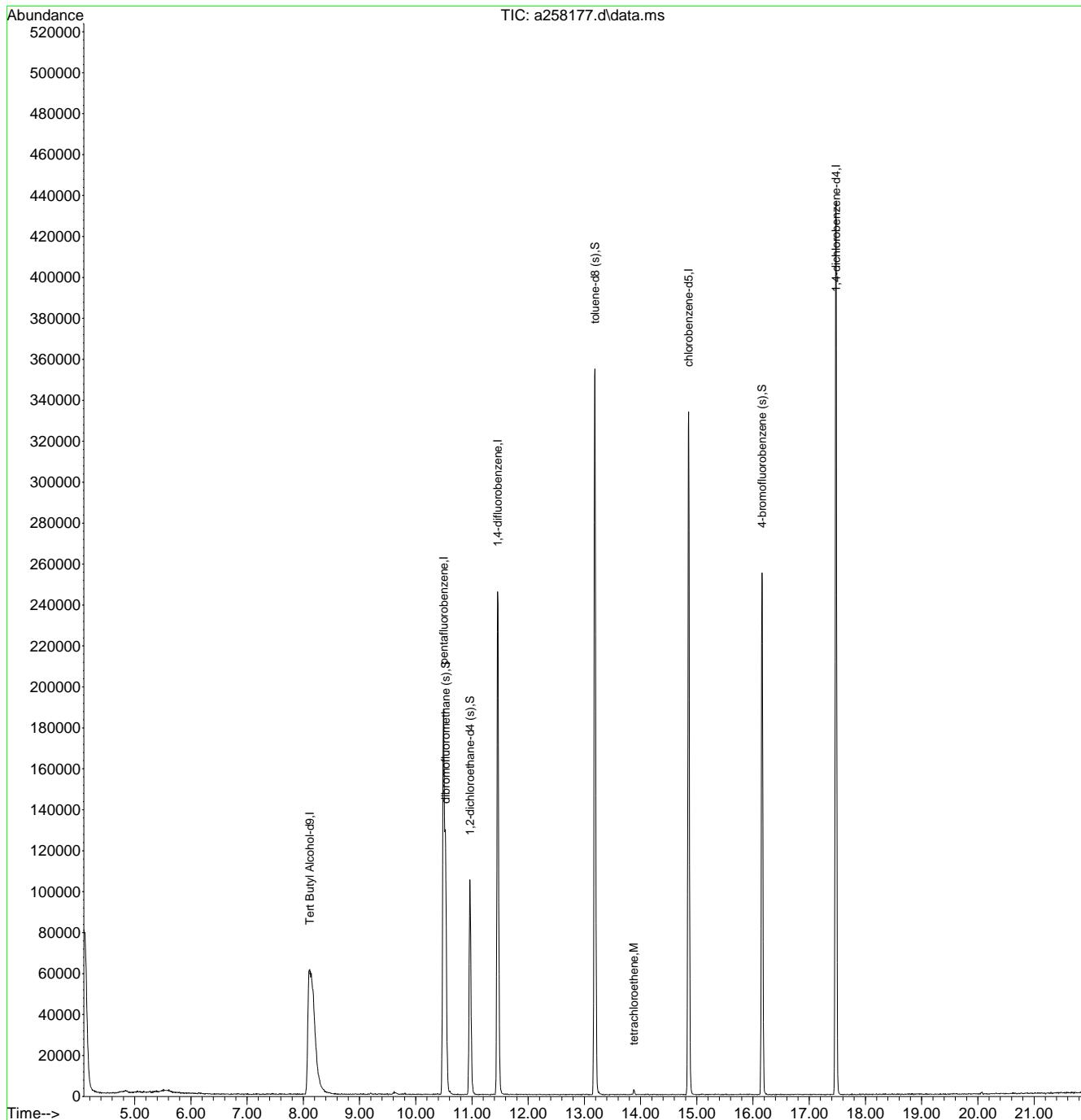
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) Tert Butyl Alcohol-d9	8.115	65	297084	500.00	ug/L	-0.02
5) pentafluorobenzene	10.495	168	157428	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.457	114	231681	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.857	117	201487	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.477	152	125991	50.00	ug/L	-0.02
<hr/>						
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.532	113	78030	45.26	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery =	90.52%		
53) 1,2-dichloroethane-d4 (s)	10.966	65	82512	45.68	ug/L	-0.03
Spiked Amount 50.000	Range 81 - 124		Recovery =	91.36%		
75) toluene-d8 (s)	13.188	98	266799	46.81	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery =	93.62%		
99) 4-bromofluorobenzene (s)	16.159	95	93196	42.03	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery =	84.06%		
<hr/>						
Target Compounds						
81) tetrachloroethene	13.879	166	862	0.59	ug/L	88
<hr/>						

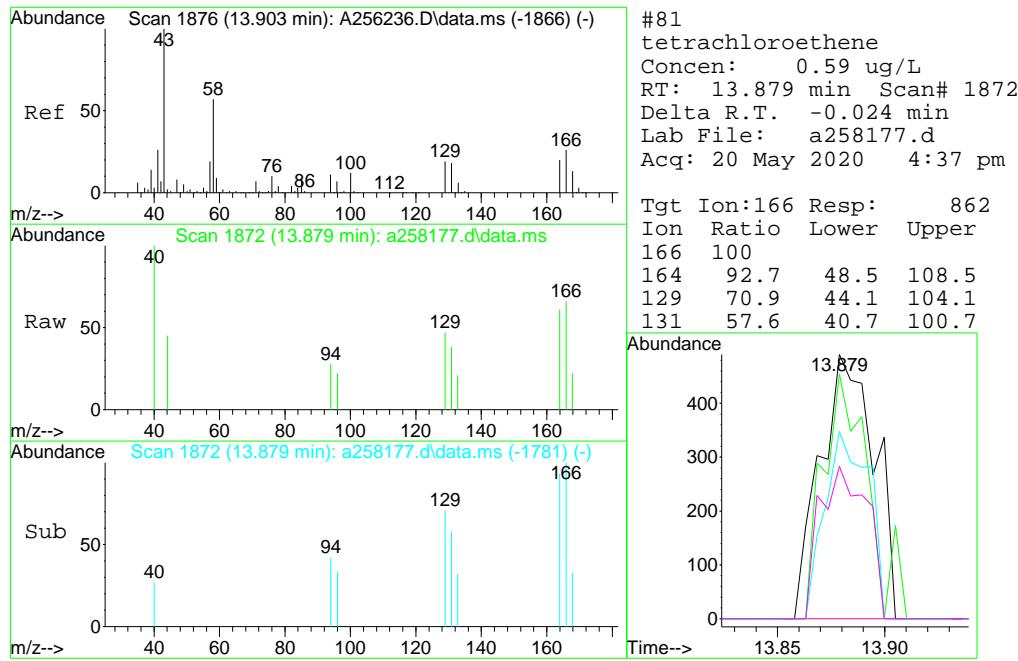
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258177.d
 Acq On : 20 May 2020 4:37 pm
 Operator : edwardd
 Sample : JD7282-5 Inst : MSA
 Misc : MS43215,VA10060,5,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:49:41 2020
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258178.d
 Acq On : 20 May 2020 5:06 pm
 Operator : edwardd
 Sample : JD7282-6 Inst : MSA
 Misc : MS43215,VA10060,5,,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:13:36 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) Tert Butyl Alcohol-d9	8.110	65	266615	500.00	ug/L	-0.03
5) pentafluorobenzene	10.495	168	150242	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.458	114	223229	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.857	117	193759	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.478	152	123028	50.00	ug/L	-0.02

System Monitoring Compounds						
44) dibromofluoromethane (s)	10.532	113	74580	45.33	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	90.66%
53) 1,2-dichloroethane-d4 (s)	10.966	65	78252	44.96	ug/L	-0.03
Spiked Amount	50.000	Range	81 - 124	Recovery	=	89.92%
75) toluene-d8 (s)	13.189	98	255823	46.68	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.36%
99) 4-bromofluorobenzene (s)	16.160	95	88497	40.87	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	81.74%

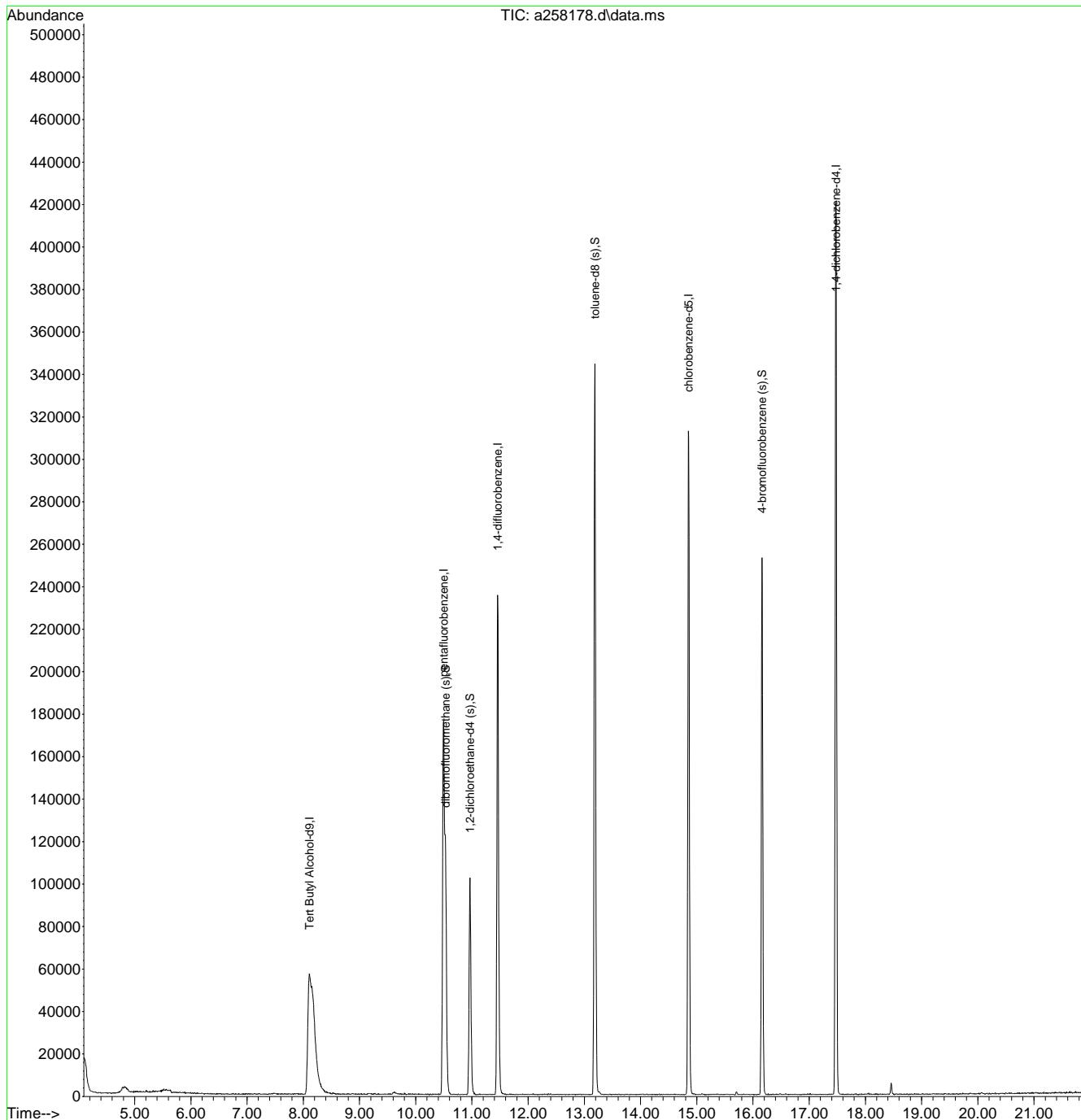
Target Compounds	Qvalue
<hr/>	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258178.d
 Acq On : 20 May 2020 5:06 pm
 Operator : edwardd
 Sample : JD7282-6 Inst : MSA
 Misc : MS43215,VA10060,5,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:13:36 2020
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258179.d
 Acq On : 20 May 2020 5:34 pm
 Operator : edwardd
 Sample : JD7282-7 Inst : MSA
 Misc : MS43215,VA10060,5,,,,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:19:28 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

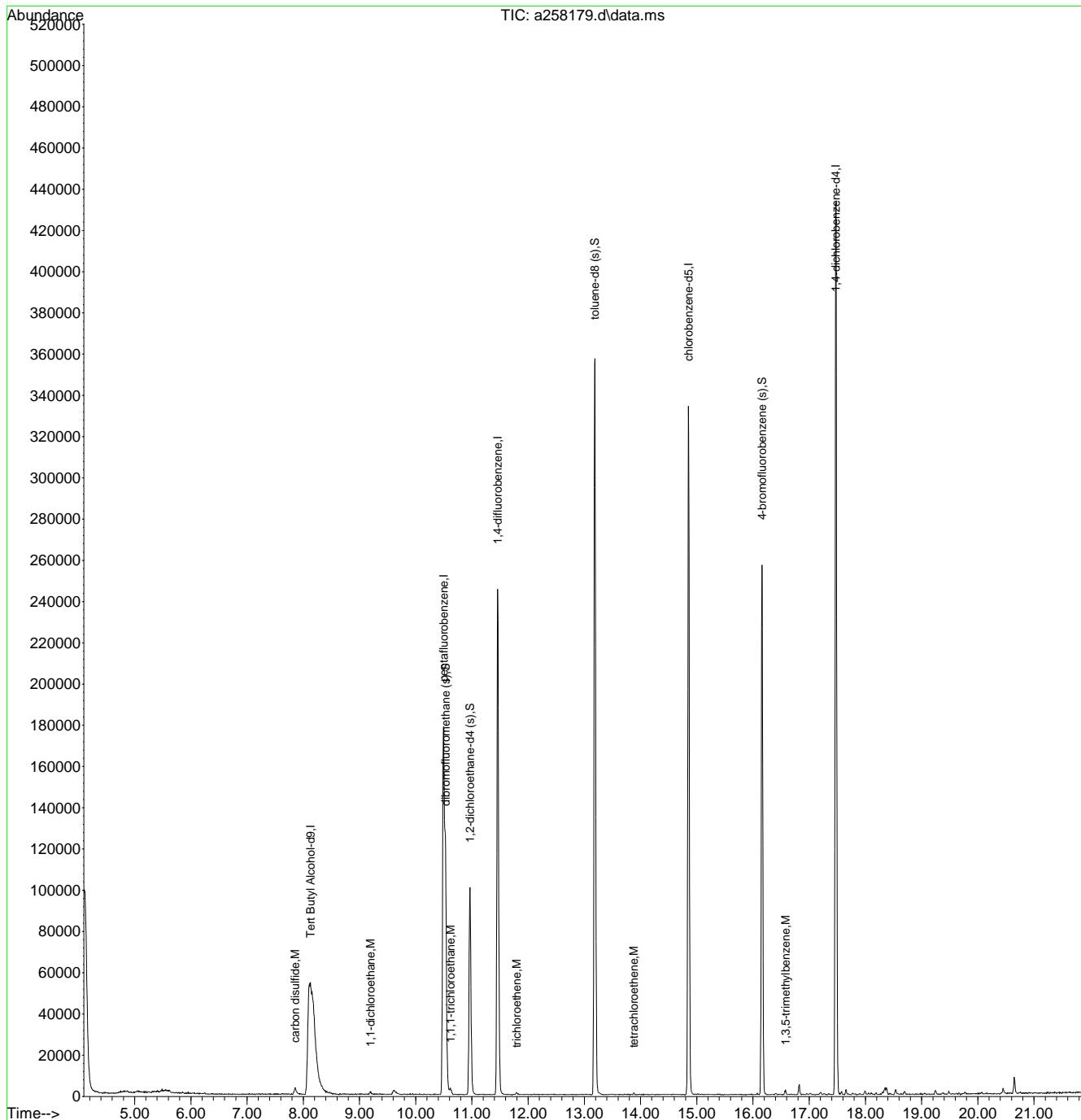
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) Tert Butyl Alcohol-d9	8.126	65	271936	500.00	ug/L	-0.01
5) pentafluorobenzene	10.495	168	155313	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.458	114	229365	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.852	117	202556	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.472	152	126707	50.00	ug/L	-0.02
<hr/>						
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.532	113	77522	45.58	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	91.16%	
53) 1,2-dichloroethane-d4 (s)	10.966	65	81032	45.32	ug/L	-0.03
Spiked Amount 50.000	Range 81 - 124		Recovery	=	90.64%	
75) toluene-d8 (s)	13.184	98	269530	47.04	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	94.08%	
99) 4-bromofluorobenzene (s)	16.160	95	91045	40.83	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	81.66%	
<hr/>						
Target Compounds						
22) carbon disulfide	7.854	76	7023	1.22	ug/L	81
31) 1,1-dichloroethane	9.193	63	1634	0.49	ug/L	77
47) 1,1,1-trichloroethane	10.616	97	2981	0.96	ug/L	85
62) trichloroethene	11.793	95	384	0.26	ug/L #	66
81) tetrachloroethene	13.879	166	397	0.27	ug/L #	52
107) 1,3,5-trimethylbenzene	16.578	105	1885	0.26	ug/L	73
<hr/>						

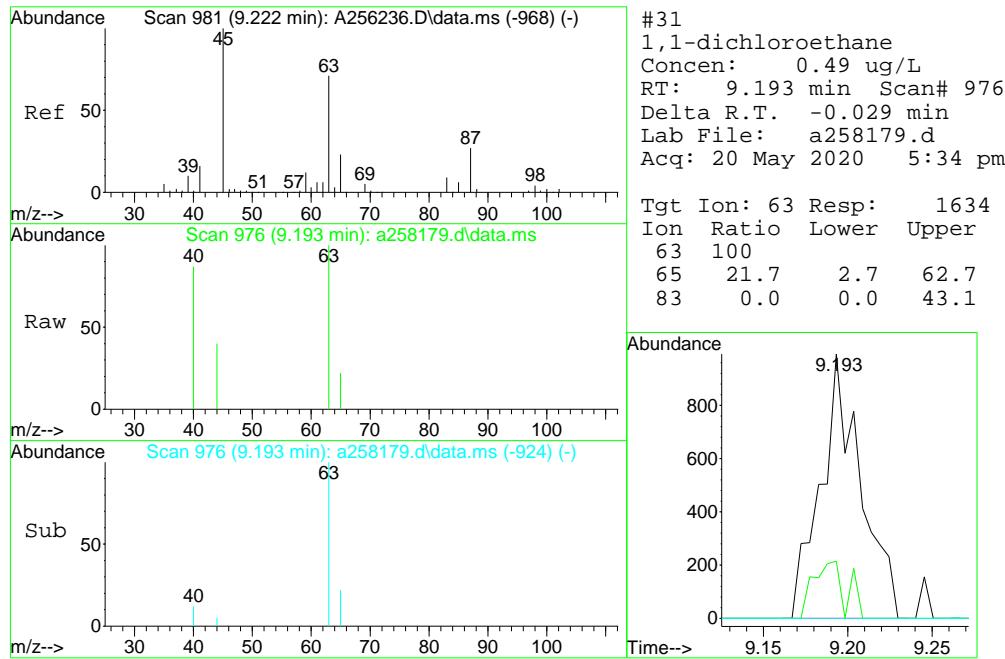
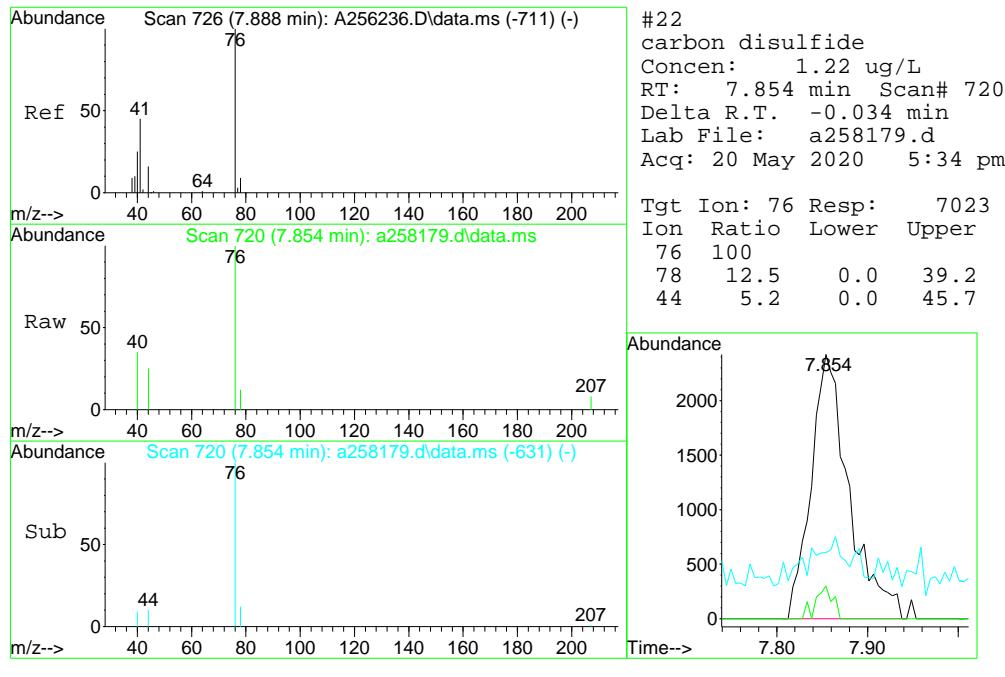
(#) = qualifier out of range (m) = manual integration (+) = signals summed

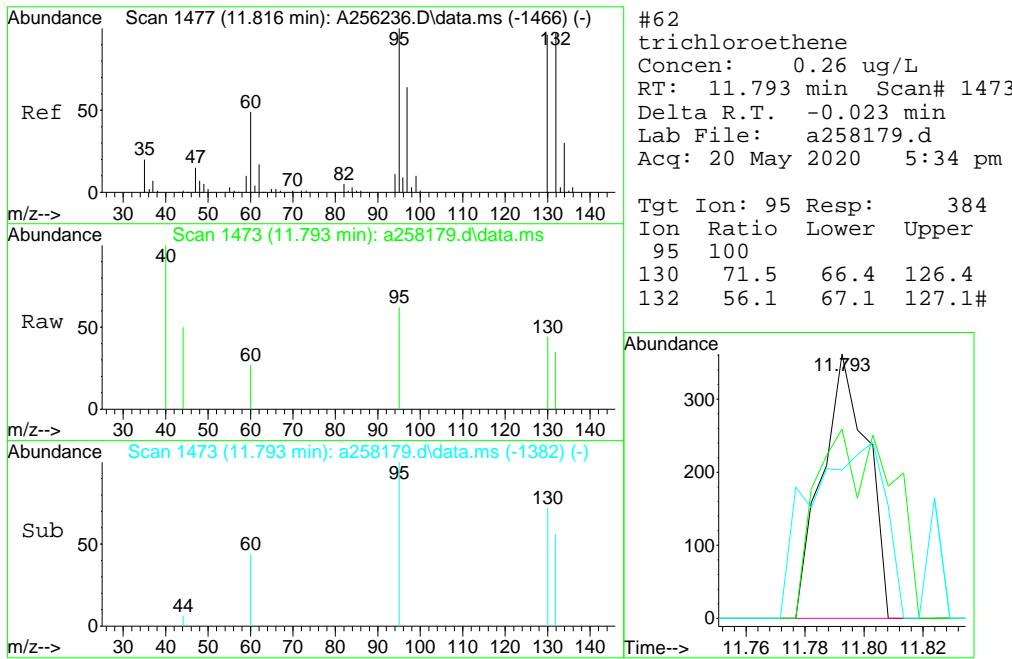
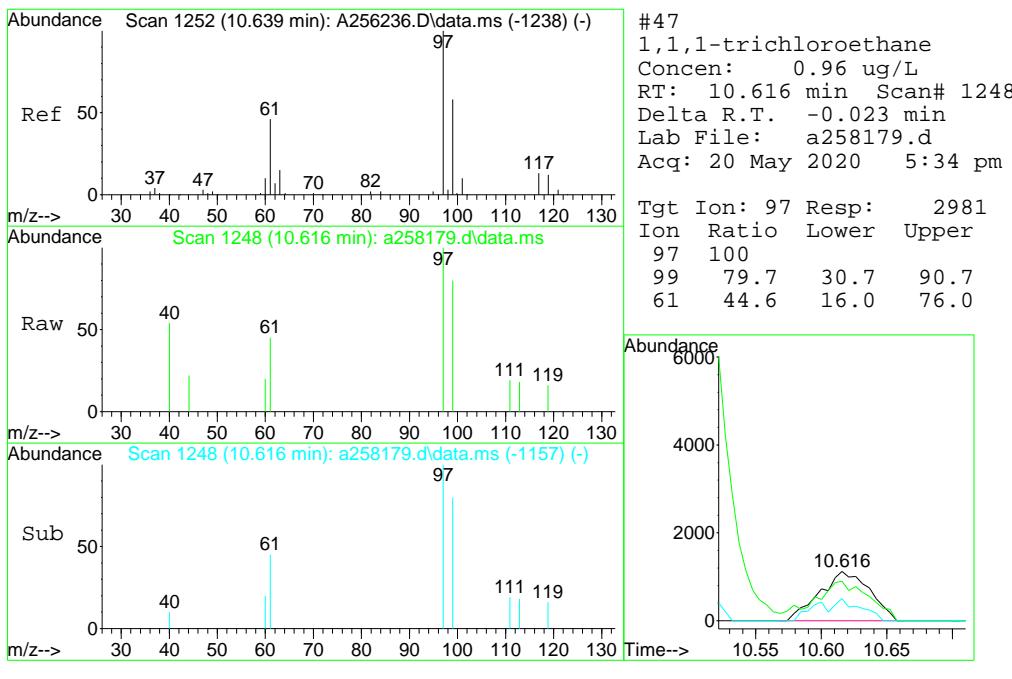
Quantitation Report (QT Reviewed)

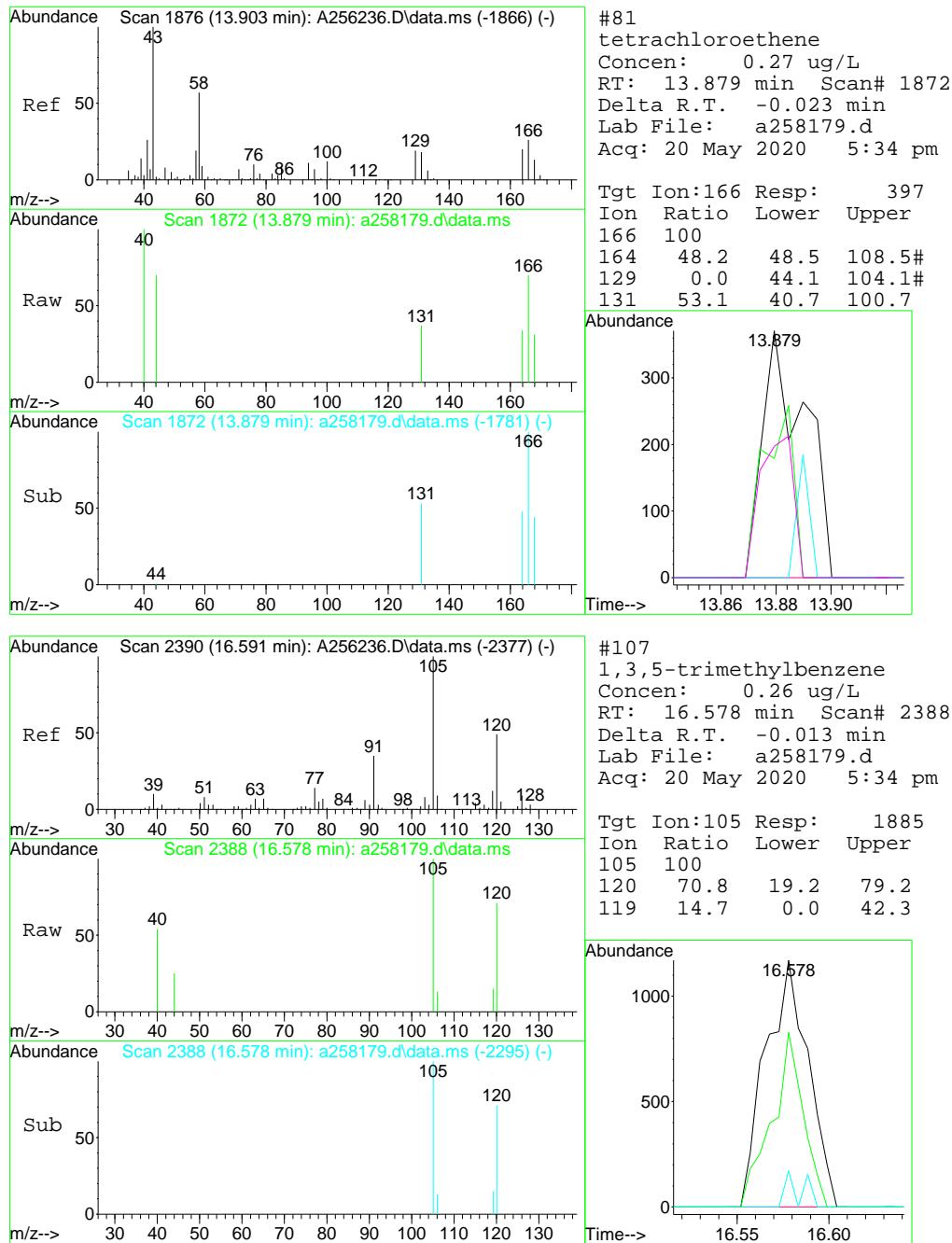
Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258179.d
 Acq On : 20 May 2020 5:34 pm
 Operator : edwardd
 Sample : JD7282-7
 Inst : MSA
 Misc : MS43215,VA10060,5,,,.1
 ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:19:28 2020
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration









Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258180.d
 Acq On : 20 May 2020 6:03 pm
 Operator : edwardd
 Sample : JD7282-8 Inst : MSA
 Misc : MS43215,VA10060,5,,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:28:28 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

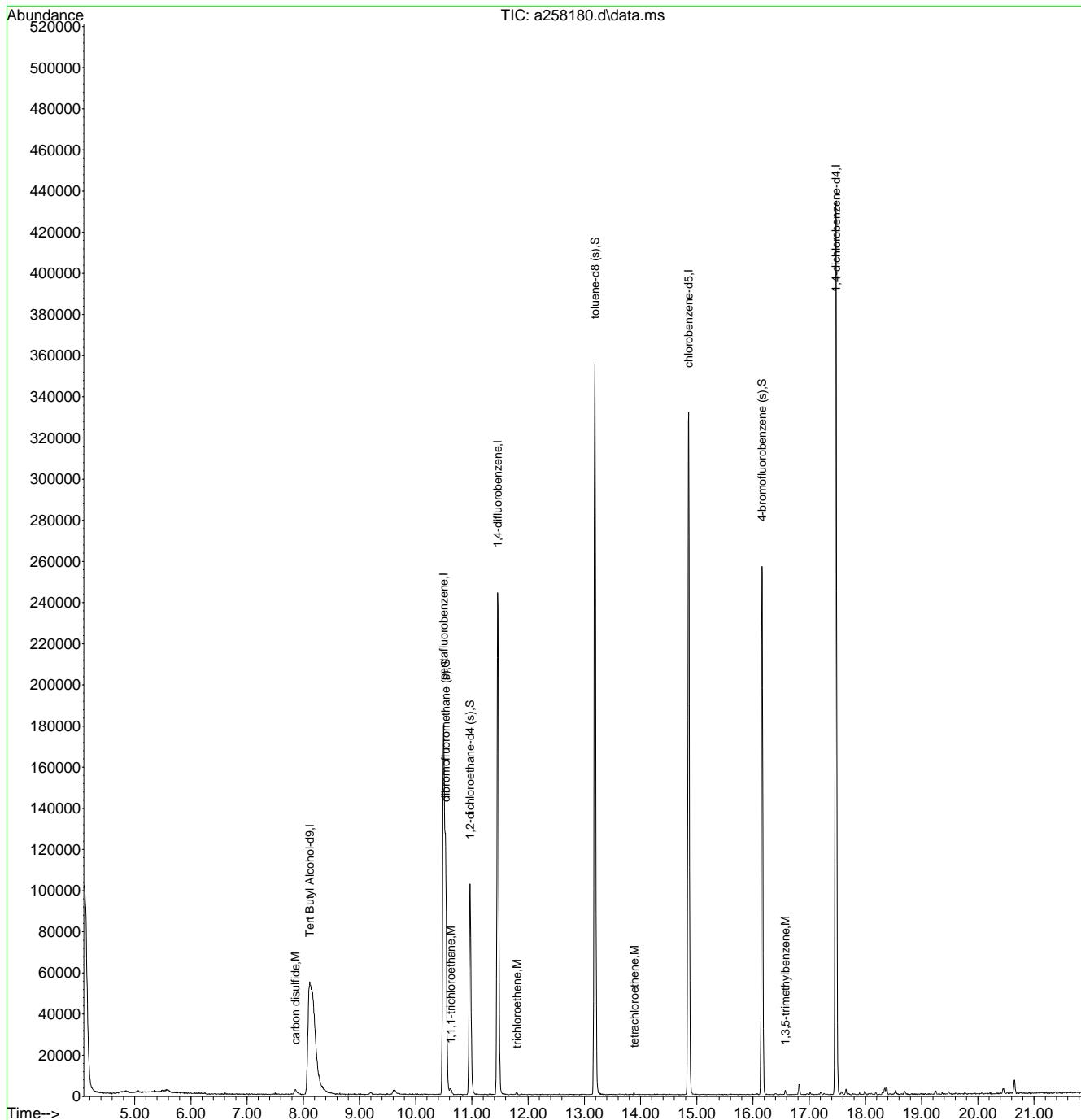
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) Tert Butyl Alcohol-d9	8.115	65	277027	500.00	ug/L	-0.02
5) pentafluorobenzene	10.495	168	155396	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.457	114	230955	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.857	117	203342	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.477	152	126098	50.00	ug/L	-0.02
<hr/>						
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.532	113	78003	45.84	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery =	91.68%		
53) 1,2-dichloroethane-d4 (s)	10.966	65	81468	45.25	ug/L	-0.03
Spiked Amount 50.000	Range 81 - 124		Recovery =	90.50%		
75) toluene-d8 (s)	13.189	98	267577	46.52	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery =	93.04%		
99) 4-bromofluorobenzene (s)	16.159	95	92291	41.59	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery =	83.18%		
<hr/>						
Target Compounds						
22) carbon disulfide	7.859	76	5909	1.02	ug/L	96
47) 1,1,1-trichloroethane	10.621	97	3194	1.03	ug/L	86
62) trichloroethene	11.797	95	396	0.26	ug/L	92
81) tetrachloroethene	13.884	166	389	0.27	ug/L	82
107) 1,3,5-trimethylbenzene	16.572	105	1731	0.24	ug/L	96

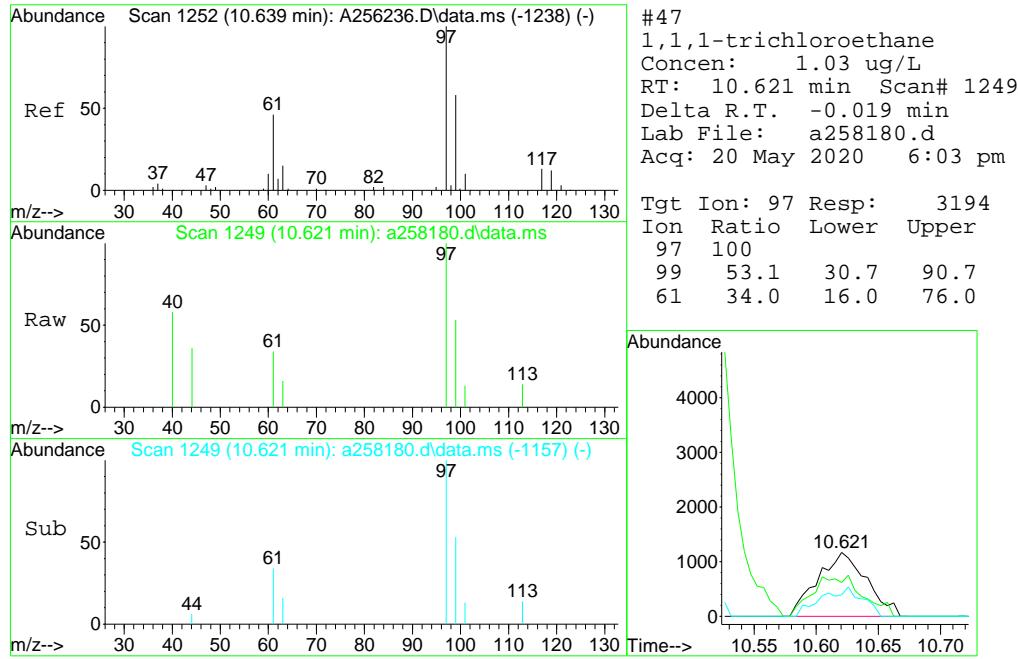
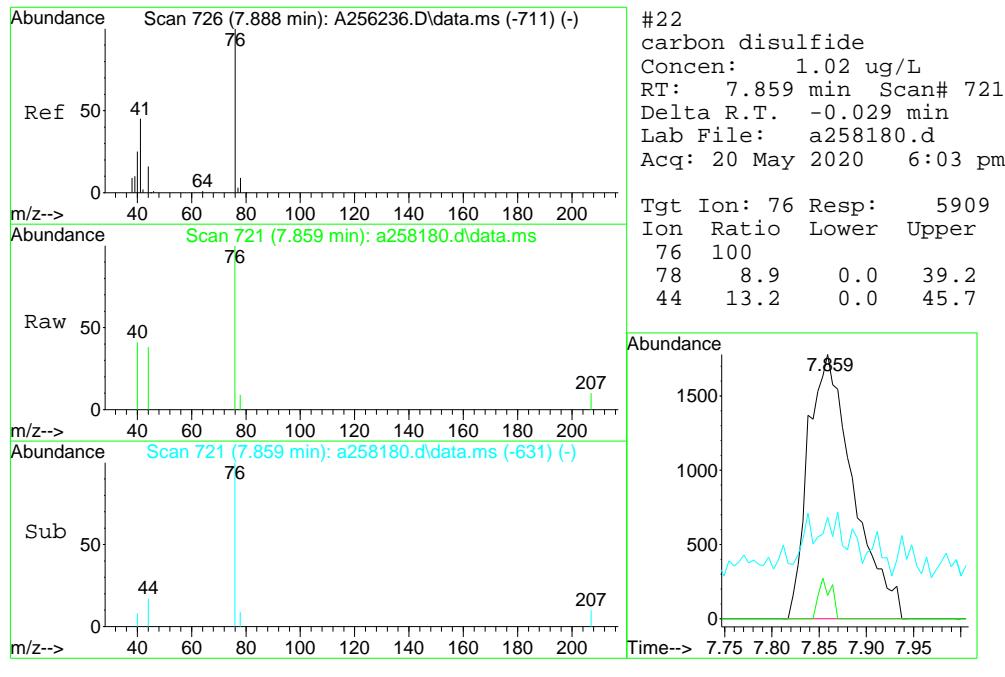
(#) = qualifier out of range (m) = manual integration (+) = signals summed

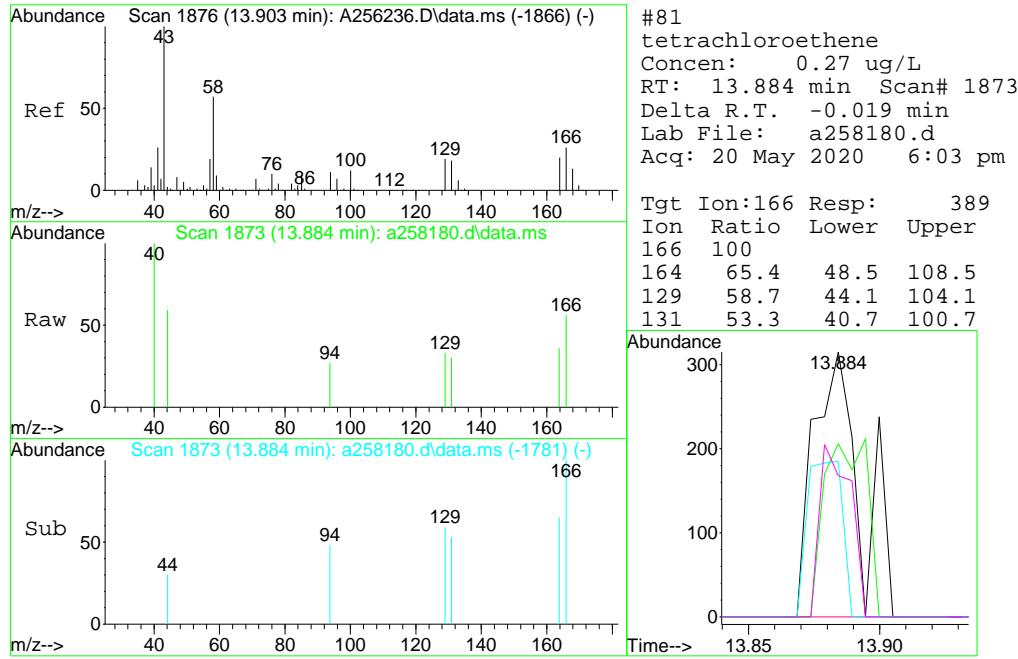
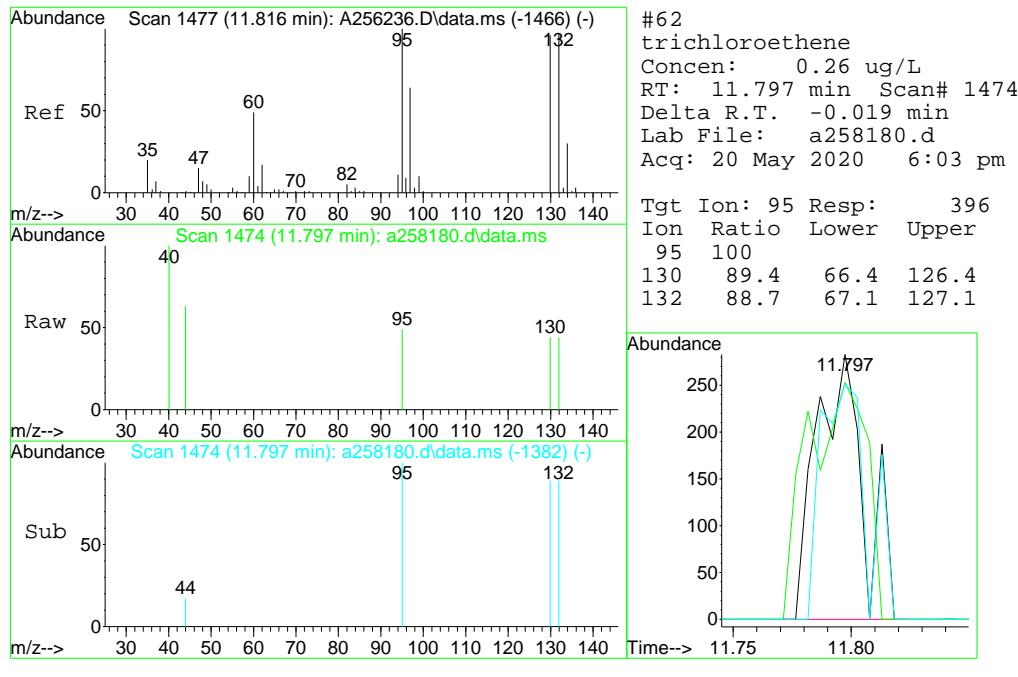
Quantitation Report (QT Reviewed)

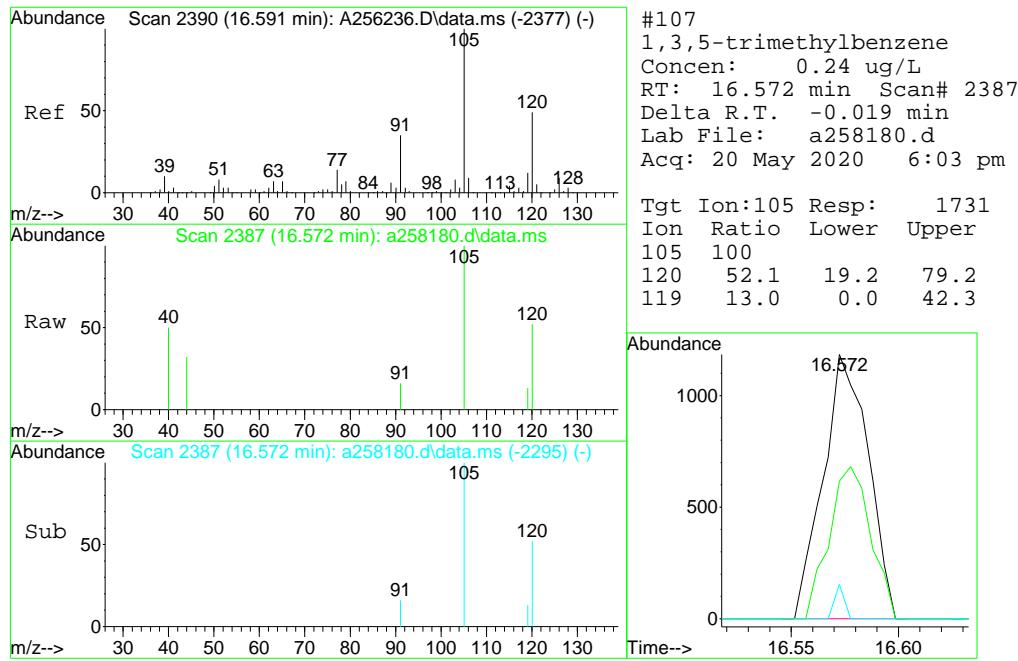
Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258180.d
 Acq On : 20 May 2020 6:03 pm
 Operator : edwardd
 Sample : JD7282-8 Inst : MSA
 Misc : MS43215,VA10060,5,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:28:28 2020
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration









Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258166.d
 Acq On : 20 May 2020 11:24 am
 Operator : edwardd
 Sample : JD7282-9 Inst : MSA
 Misc : MS43215,VA10060,5,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:46:48 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

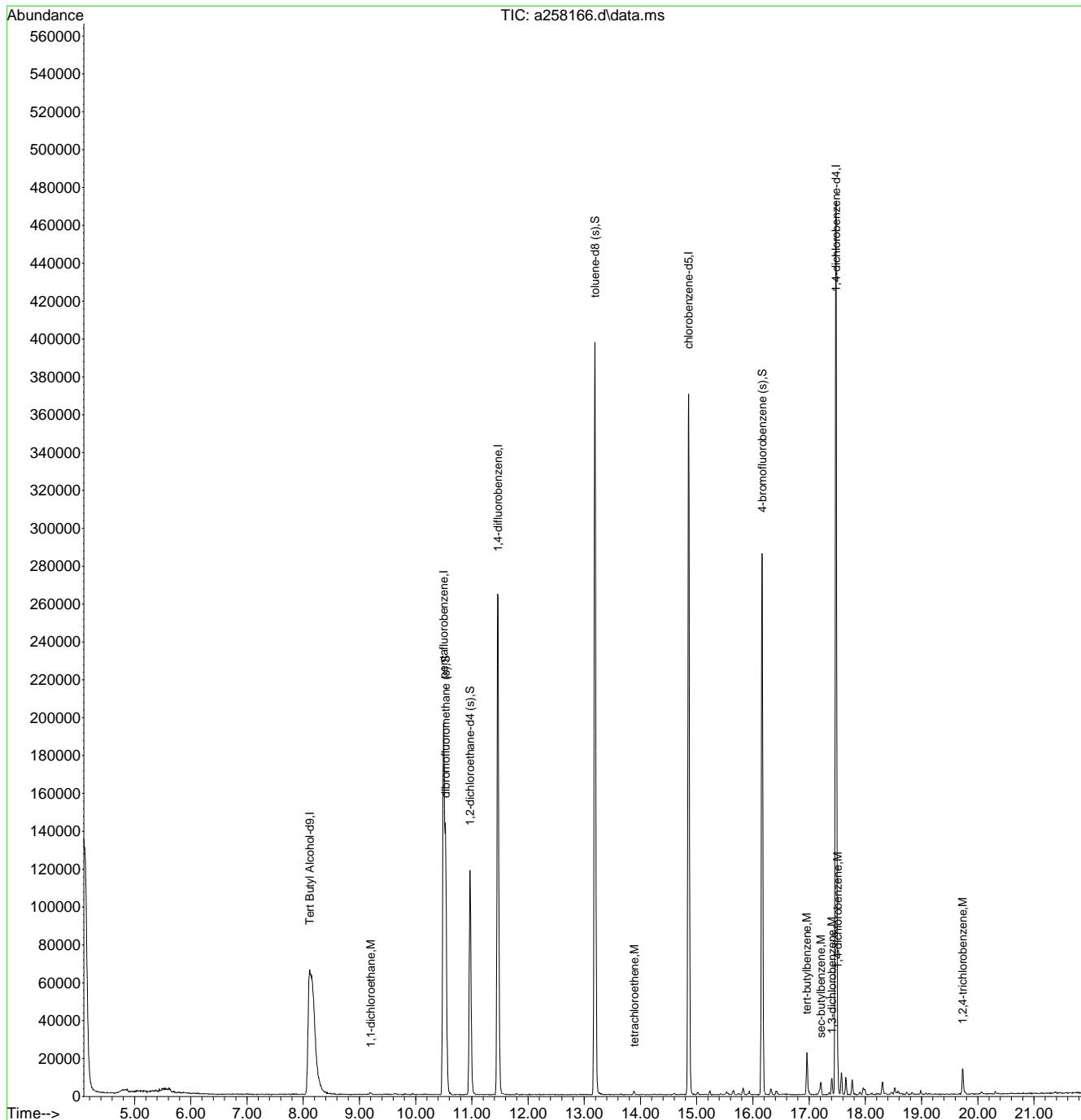
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) Tert Butyl Alcohol-d9	8.117	65	306893	500.00	ug/L	#-0.02
5) pentafluorobenzene	10.496	168	169317	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.464	114	257053	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.858	117	225318	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.478	152	135708	50.00	ug/L	-0.02
<hr/>						
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.533	113	84985	45.84	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	91.68%	
53) 1,2-dichloroethane-d4 (s)	10.967	65	92138	45.98	ug/L	-0.03
Spiked Amount 50.000	Range 81 - 124		Recovery	=	91.96%	
75) toluene-d8 (s)	13.190	98	300529	47.15	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	94.30%	
99) 4-bromofluorobenzene (s)	16.166	95	102410	42.88	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery	=	85.76%	
<hr/>						
Target Compounds						
31) 1,1-dichloroethane	9.199	63	1528	0.42	ug/L	72
81) tetrachloroethene	13.885	166	804	0.50	ug/L	# 75
108) tert-butylbenzene	16.955	119	11357	1.70	ug/L	89
110) sec-butylbenzene	17.206	105	5680	0.57	ug/L	92
111) 1,3-dichlorobenzene	17.405	146	4529	1.14	ug/L	95
113) 1,4-dichlorobenzene	17.505	146	5983	1.48	ug/L	96
119) 1,2,4-trichlorobenzene	19.733	180	5646	1.84	ug/L	95
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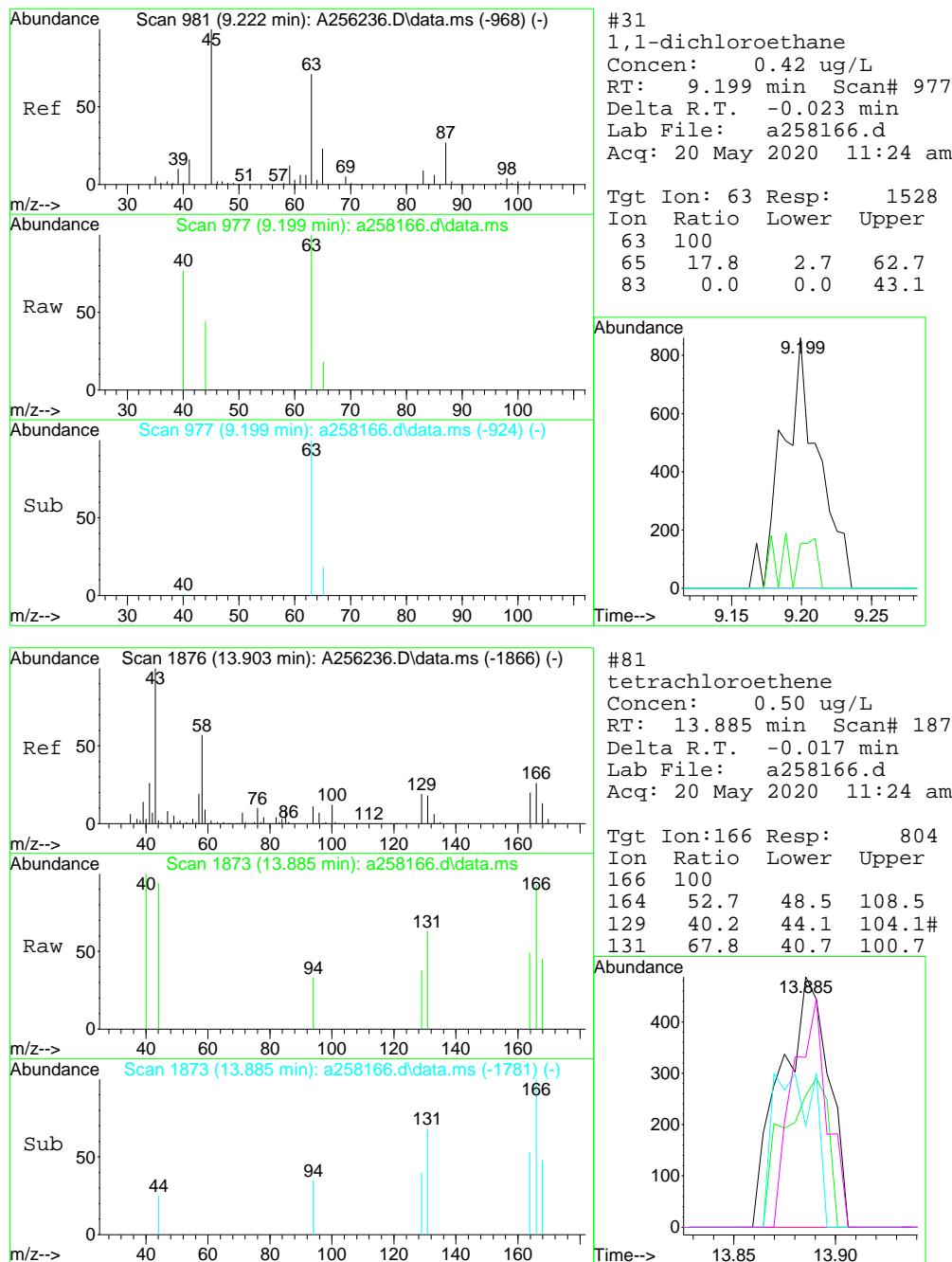
(#) = qualifier out of range (m) = manual integration (+) = signals summed

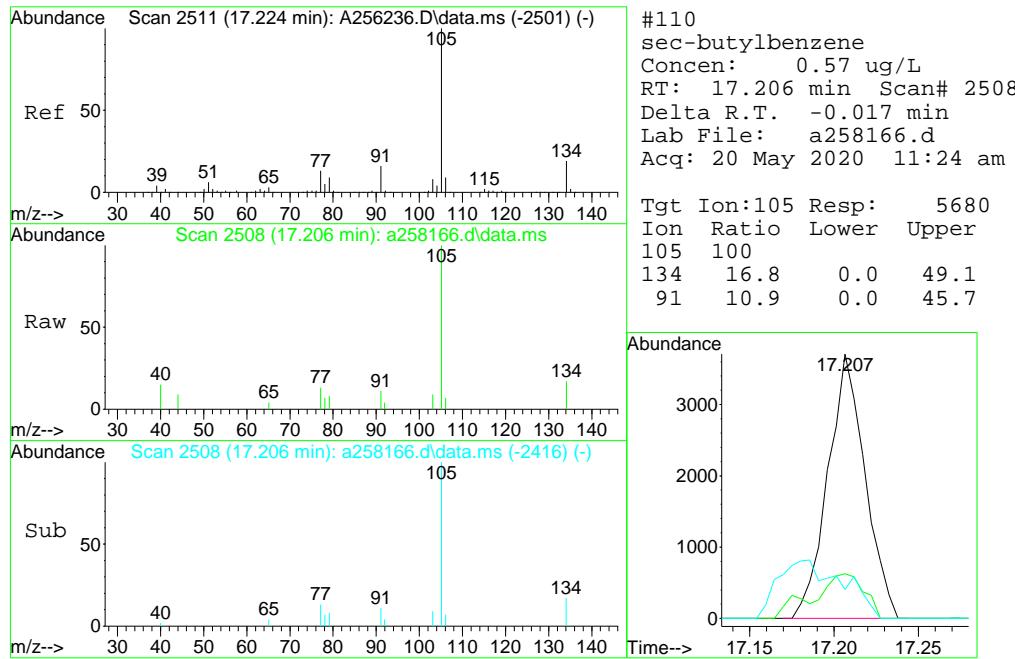
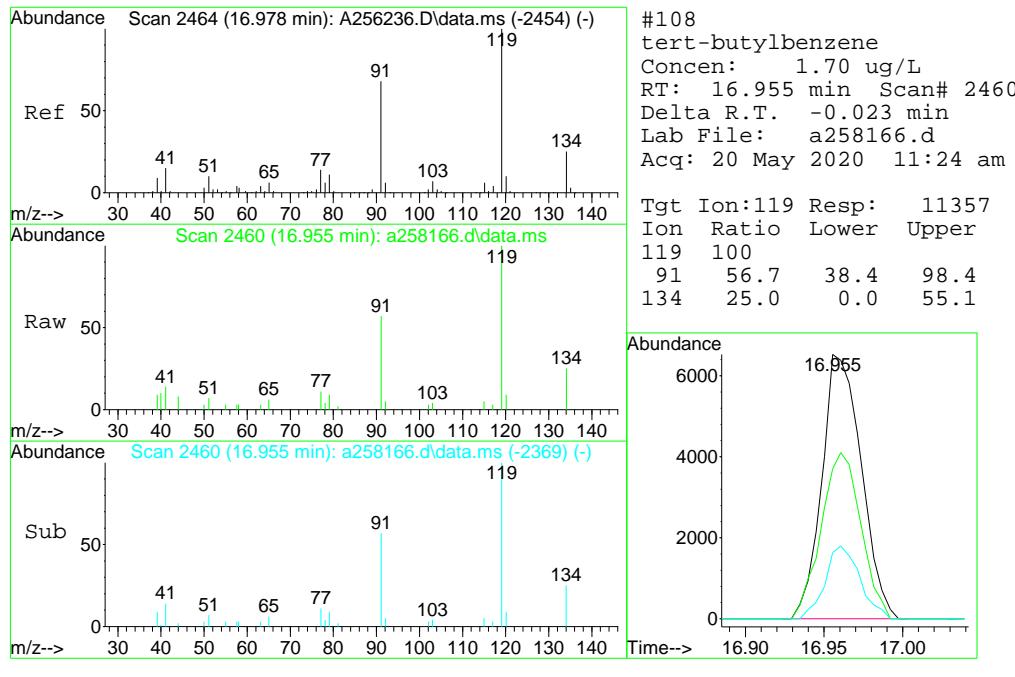
Quantitation Report (QT Reviewed)

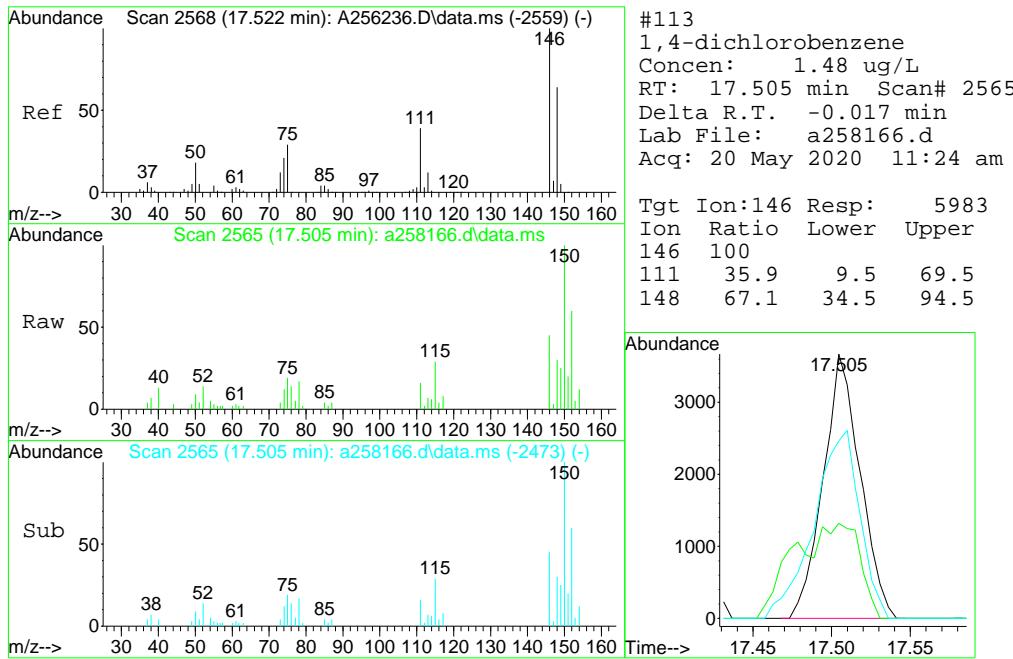
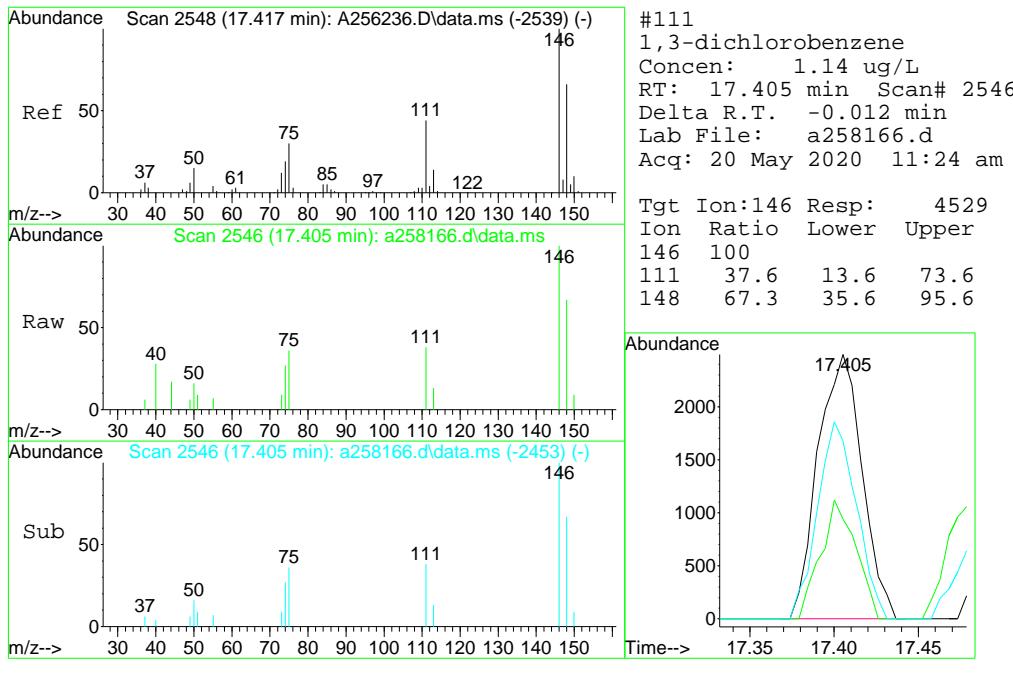
Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258166.d
 Acq On : 20 May 2020 11:24 am
 Operator : edwardd
 Sample : JD7282-9
 Inst : MSA
 Misc : MS43215,VA10060,5,,,.1
 ALS Vial : 6 Sample Multiplier: 1

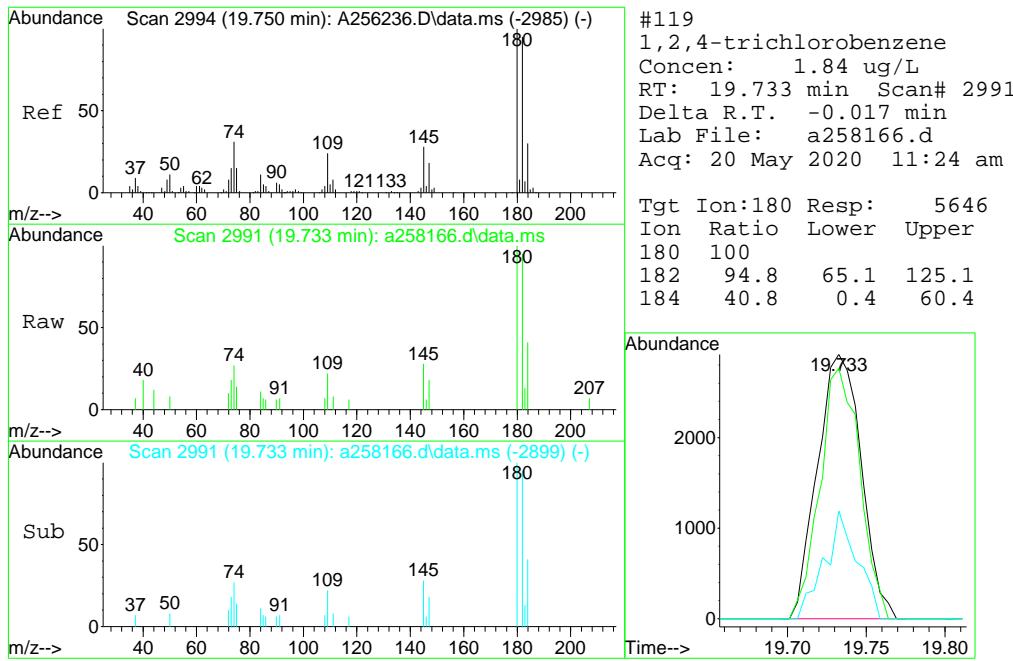
Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:46:48 2020
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration











Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258181.d
 Acq On : 20 May 2020 6:31 pm
 Operator : edwardd
 Sample : JD7282-10 Inst : MSA
 Misc : MS43215,VA10060,5,,,,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:29:28 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.116	65	279671	500.00	ug/L	#-0.02
5) pentafluorobenzene	10.496	168	152224	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.458	114	229180	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.852	117	197135	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.473	152	121917	50.00	ug/L	-0.02

System Monitoring Compounds						
44) dibromofluoromethane (s)	10.532	113	76995	46.19	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.38%
53) 1,2-dichloroethane-d4 (s)	10.966	65	81499	45.61	ug/L	-0.03
Spiked Amount	50.000	Range	81 - 124	Recovery	=	91.22%
75) toluene-d8 (s)	13.189	98	264491	47.43	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	94.86%
99) 4-bromofluorobenzene (s)	16.160	95	90184	42.03	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	84.06%

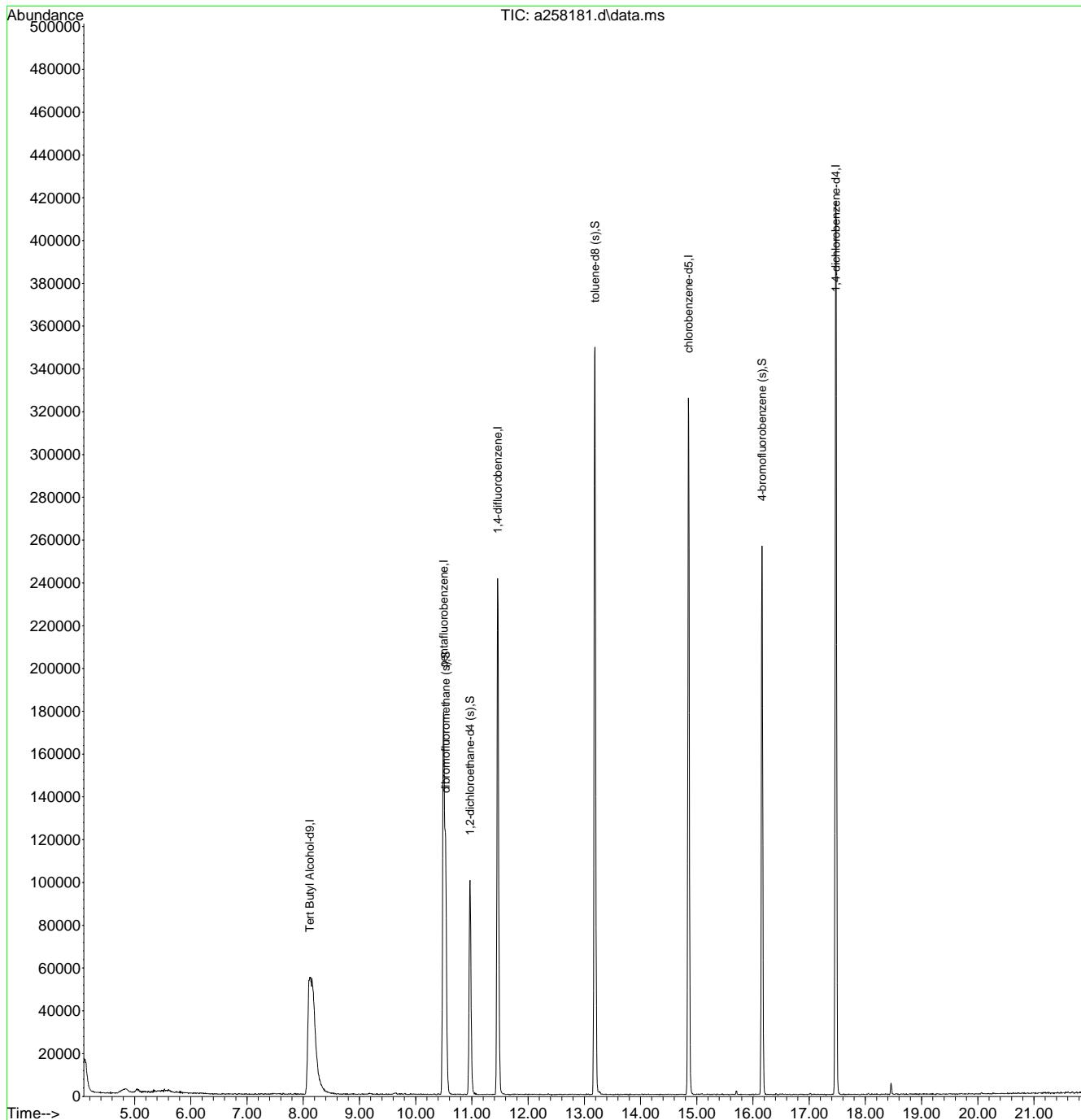
Target Compounds	Qvalue
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258181.d
 Acq On : 20 May 2020 6:31 pm
 Operator : edwarddd
 Sample : JD7282-10 Inst : MSA
 Misc : MS43215,VA10060,5,,,.1
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 23:29:28 2020
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258167.d
 Acq On : 20 May 2020 11:53 am
 Operator : edwardd
 Sample : JD7282-11 Inst : MSA
 Misc : MS43215,VA10060,5,,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:47:30 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

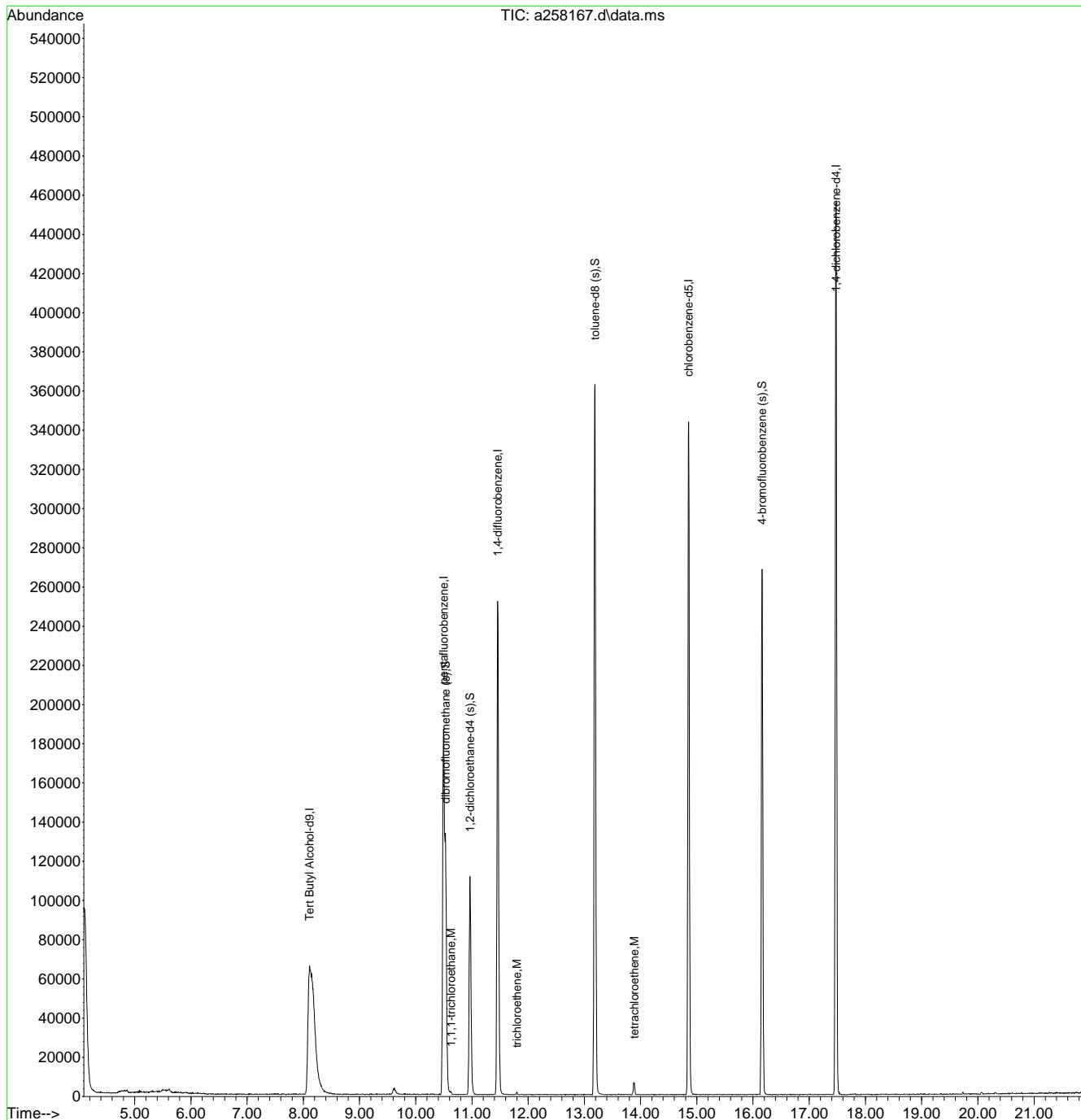
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) Tert Butyl Alcohol-d9	8.110	65	309693	500.00	ug/L	-0.03
5) pentafluorobenzene	10.495	168	158312	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.457	114	235721	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.856	117	209772	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.477	152	132837	50.00	ug/L	-0.02
<hr/>						
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.531	113	80951	46.70	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	93.40%	
53) 1,2-dichloroethane-d4 (s)	10.965	65	86332	46.98	ug/L	-0.03
Spiked Amount 50.000	Range 81 - 124		Recovery	=	93.96%	
75) toluene-d8 (s)	13.188	98	272035	45.84	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	91.68%	
99) 4-bromofluorobenzene (s)	16.159	95	96486	41.27	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	82.54%	
<hr/>						
Target Compounds						
47) 1,1,1-trichloroethane	10.625	97	1400	0.44	ug/L	95
62) trichloroethene	11.797	95	390	0.25	ug/L	75
81) tetrachloroethene	13.889	166	2119	1.40	ug/L	78

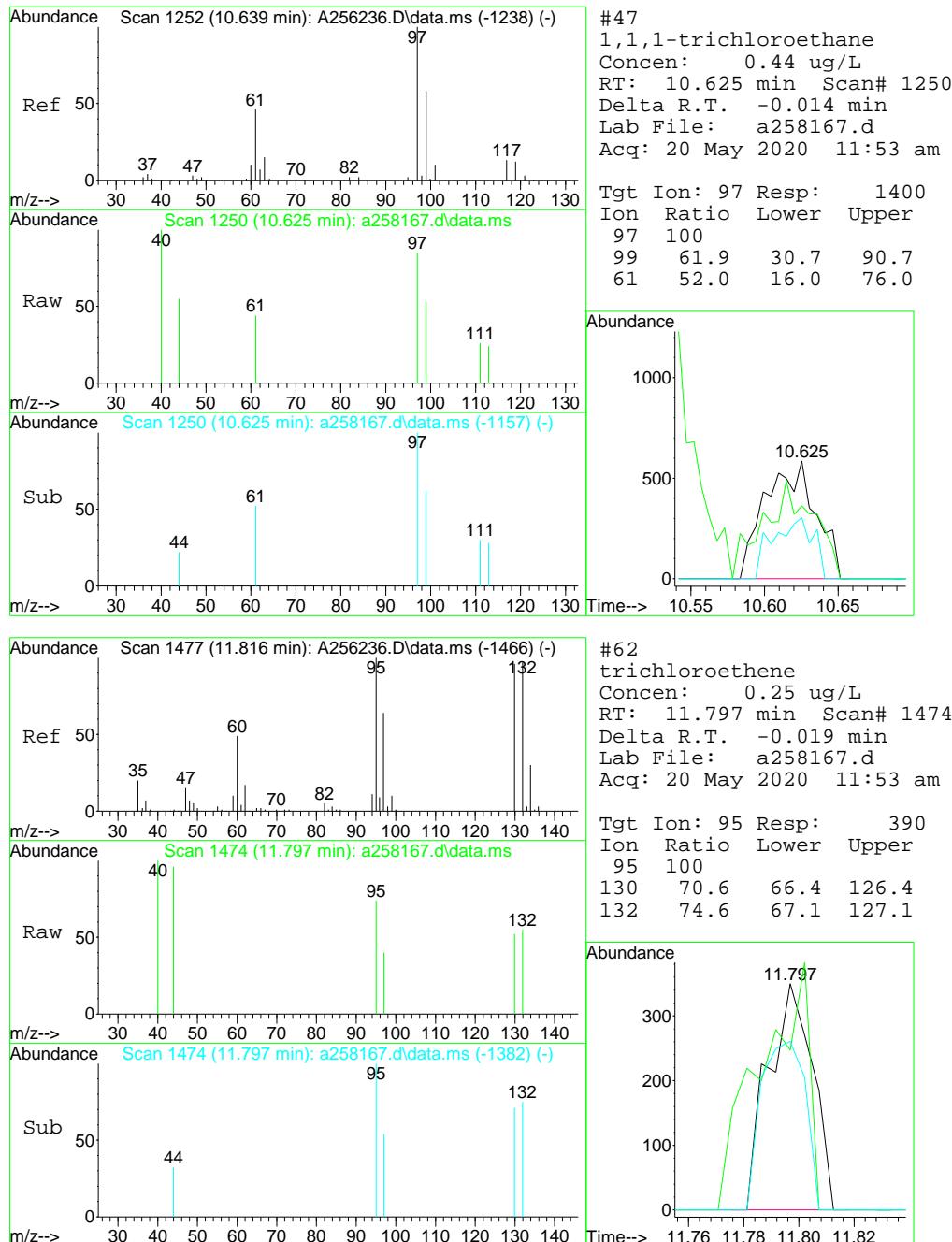
(#) = qualifier out of range (m) = manual integration (+) = signals summed

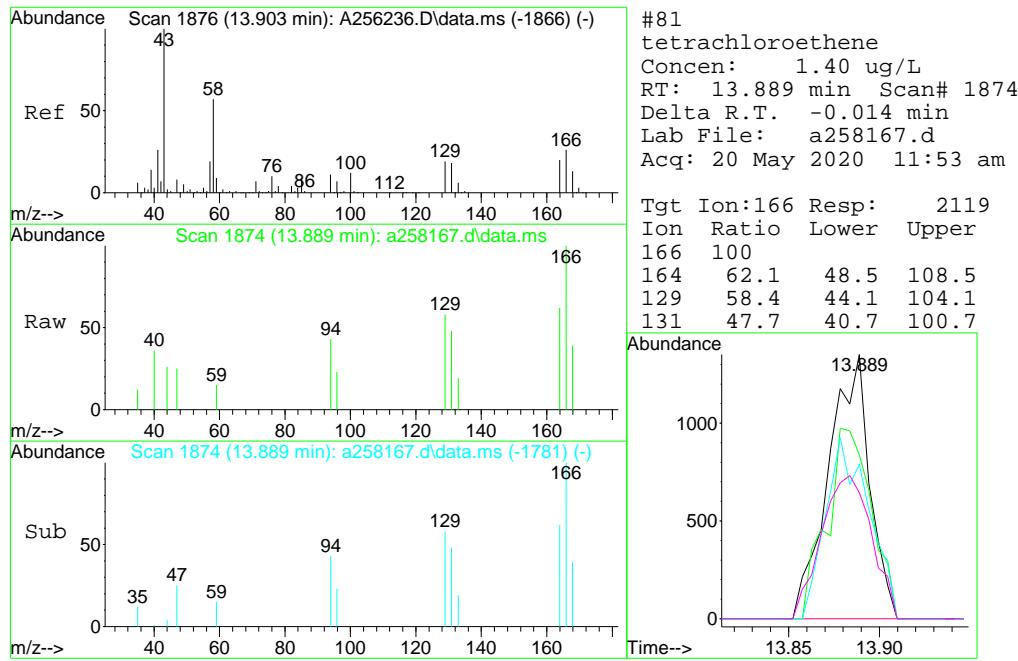
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258167.d
 Acq On : 20 May 2020 11:53 am
 Operator : edwarddd
 Sample : JD7282-11 Inst : MSA
 Misc : MS43215,VA10060,5,,,.1
 ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:47:30 2020
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration







Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258172.d
 Acq On : 20 May 2020 2:15 pm
 Operator : edwardd
 Sample : JD7282-12 Inst : MSA
 Misc : MS43215,VA10060,5,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:54:33 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) Tert Butyl Alcohol-d9	8.111	65	305306	500.00	ug/L	-0.03
5) pentafluorobenzene	10.496	168	171447	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.458	114	252329	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.852	117	219971	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.473	152	143358	50.00	ug/L	-0.02

System Monitoring Compounds						
44) dibromofluoromethane (s)	10.527	113	84941	45.24	ug/L	-0.03
Spiked Amount	50.000	Range	80 - 120	Recovery	=	90.48%
53) 1,2-dichloroethane-d4 (s)	10.961	65	90943	46.23	ug/L	-0.03
Spiked Amount	50.000	Range	81 - 124	Recovery	=	92.46%
75) toluene-d8 (s)	13.189	98	286220	46.00	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.00%
99) 4-bromofluorobenzene (s)	16.160	95	101179	40.10	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	80.20%

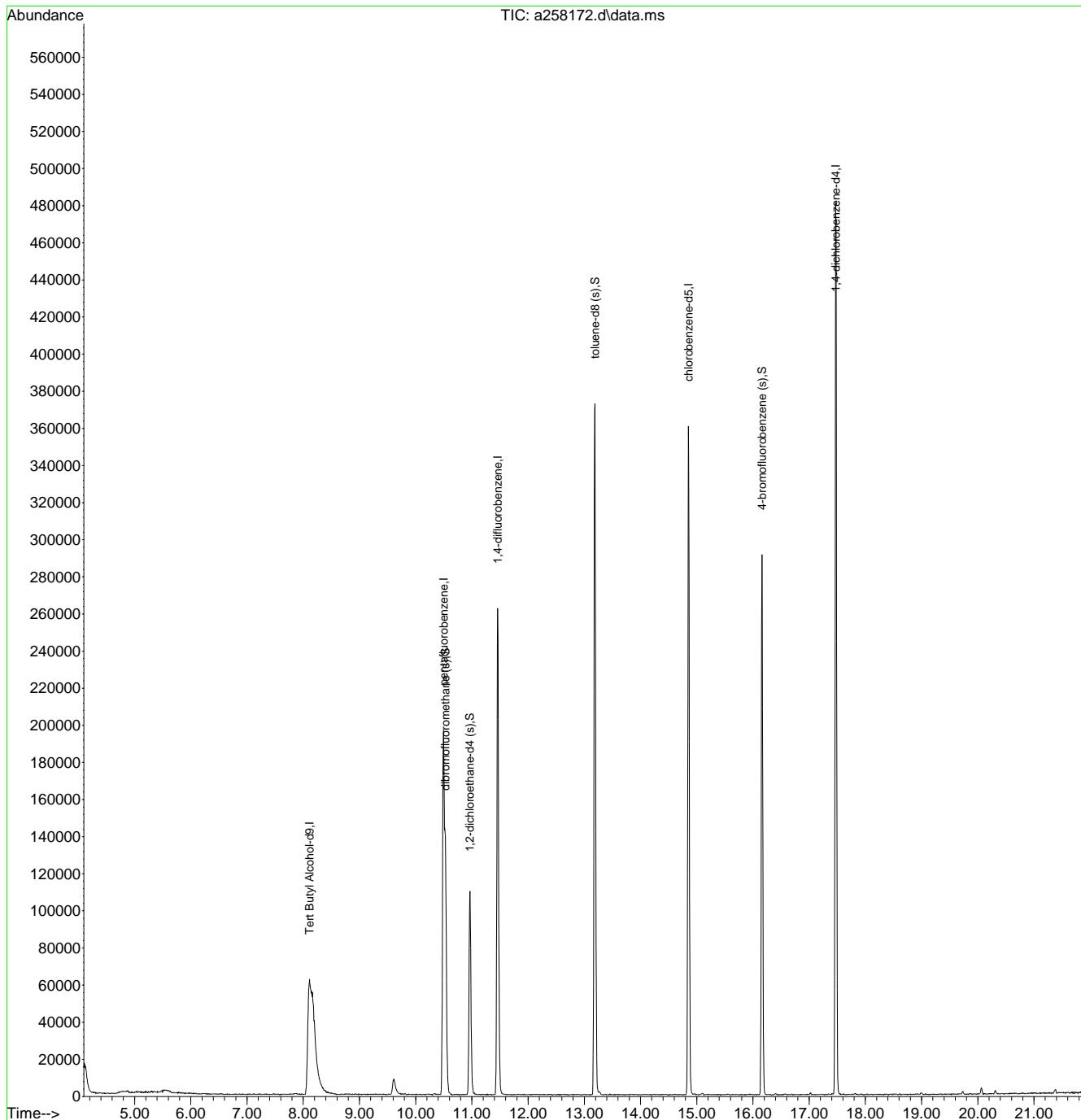
Target Compounds	Qvalue
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258172.d
 Acq On : 20 May 2020 2:15 pm
 Operator : edwarddd
 Sample : JD7282-12 Inst : MSA
 Misc : MS43215,VA10060,5,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:54:33 2020
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration



Quantitation Report (LSC Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258165.d
 Acq On : 20 May 2020 10:49 am
 Operator : edwardd
 Sample : mb Inst : MSA
 Misc : MS43077,VA10060,5,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:42:45 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

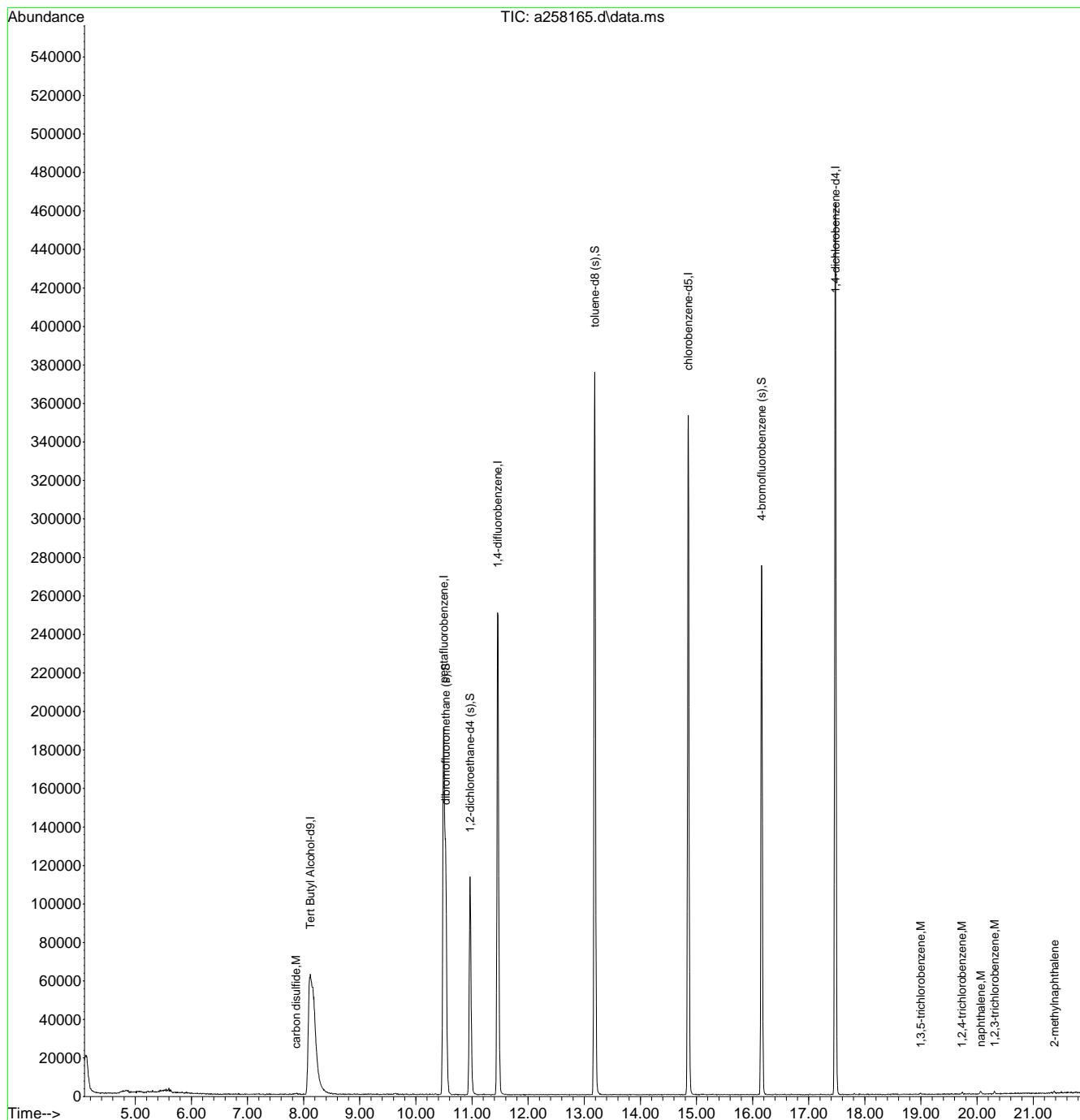
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) Tert Butyl Alcohol-d9	8.120	65	304203	500.00	ug/L	-0.02
5) pentafluorobenzene	10.494	168	164959	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.457	114	243359	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.856	117	211338	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.477	152	134283	50.00	ug/L	-0.02
<hr/>						
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.531	113	81134	44.92	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	89.84%	
53) 1,2-dichloroethane-d4 (s)	10.965	65	88616	46.71	ug/L	-0.03
Spiked Amount 50.000	Range 81 - 124		Recovery	=	93.42%	
75) toluene-d8 (s)	13.188	98	279352	46.73	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	93.46%	
99) 4-bromofluorobenzene (s)	16.159	95	99221	41.98	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	83.96%	
<hr/>						
Target Compounds						
22) carbon disulfide	7.864	76	1075	0.18	ug/L	64
117) 1,3,5-trichlorobenzene	18.993	180	406	0.13	ug/L	77
119) 1,2,4-trichlorobenzene	19.731	180	558	0.18	ug/L	# 84
121) naphthalene	20.065	128	2322	0.23	ug/L	68
122) 1,2,3-trichlorobenzene	20.311	180	733	0.24	ug/L	# 72
124) 2-methylnaphthalene	21.378	142	643	0.12	ug/L	# 83
<hr/>						

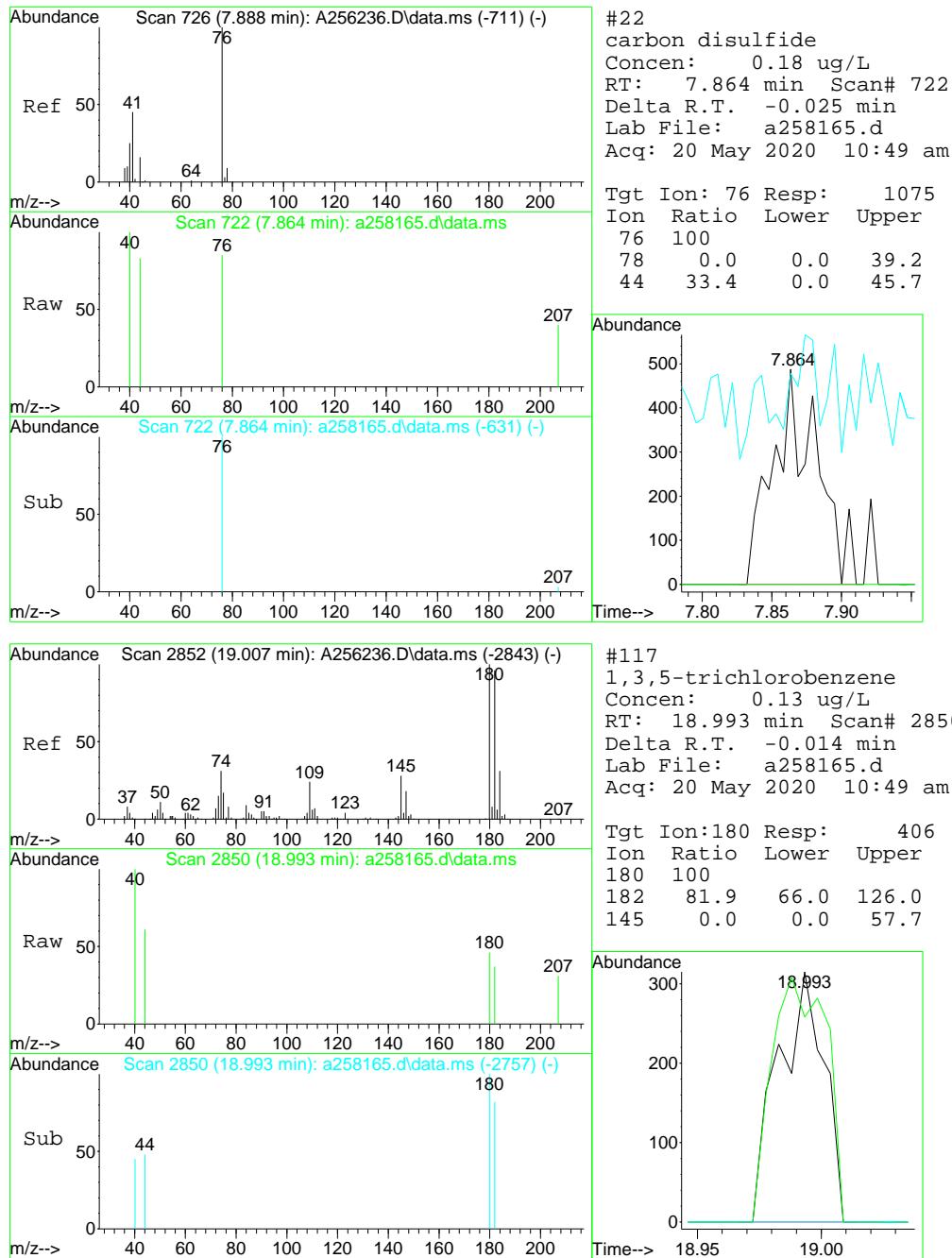
(#) = qualifier out of range (m) = manual integration (+) = signals summed

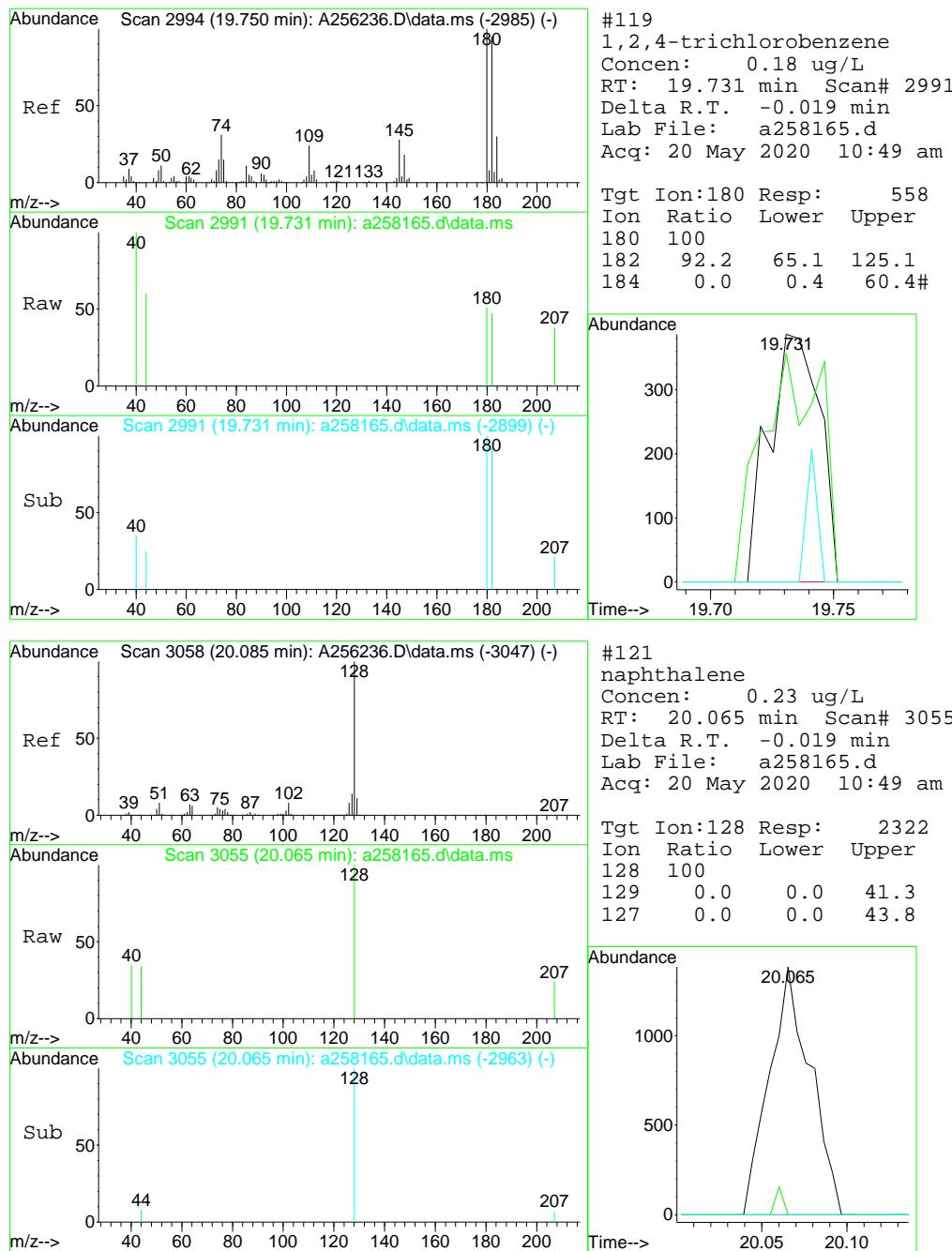
Quantitation Report (LSC Reviewed)

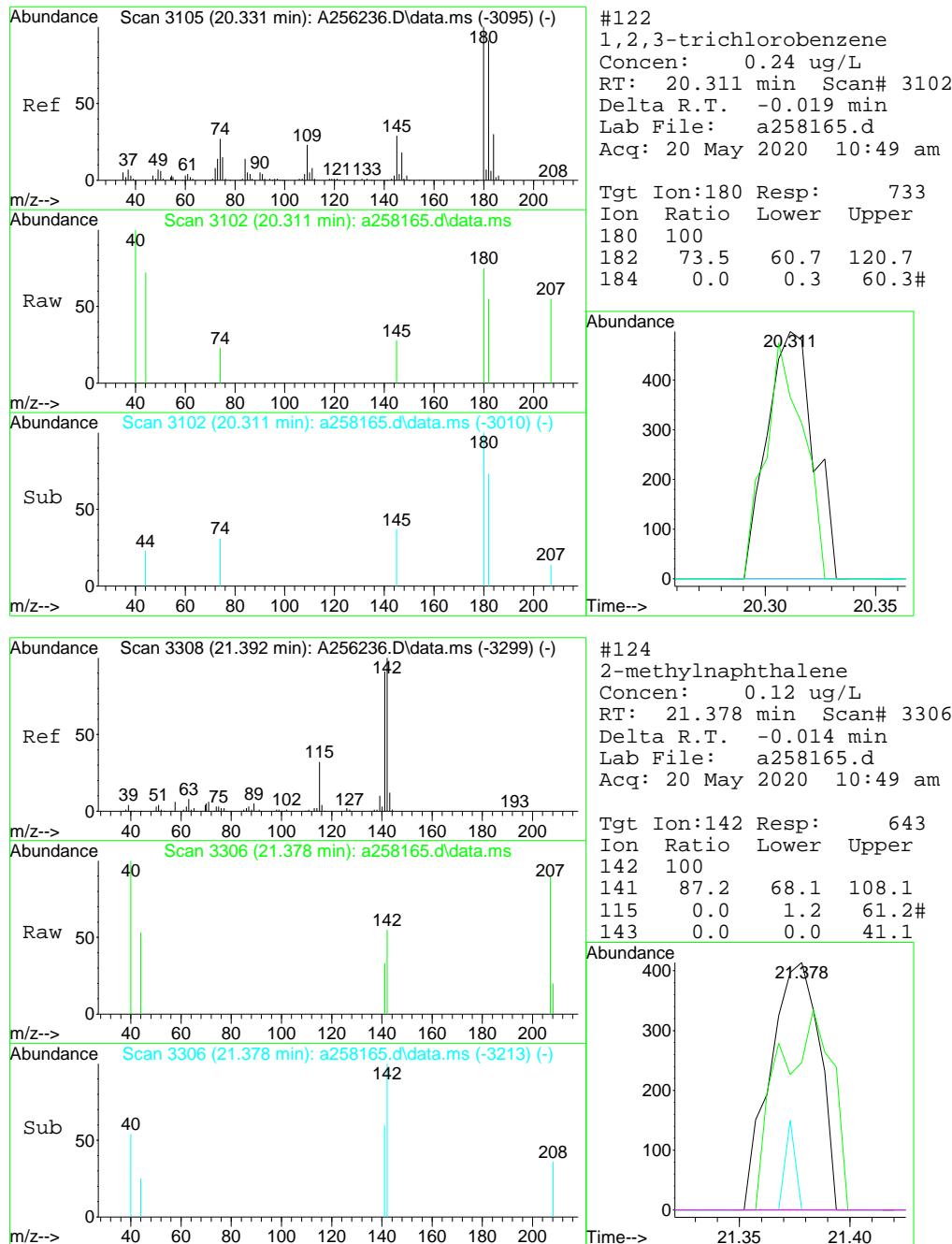
Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258165.d
 Acq On : 20 May 2020 10:49 am
 Operator : edwardd
 Sample : mb Inst : MSA
 Misc : MS43077,VA10060,5,,,.1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:42:45 2020
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration









Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67669.d
 Acq On : 21 May 2020 9:47 am
 Operator : ROBERTS
 Sample : MB Inst : MS2V
 Misc : MS37677,V2V2800,5,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 21:39:40 2020
 Quant Title : SW 846 Method 8260C, RxI-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

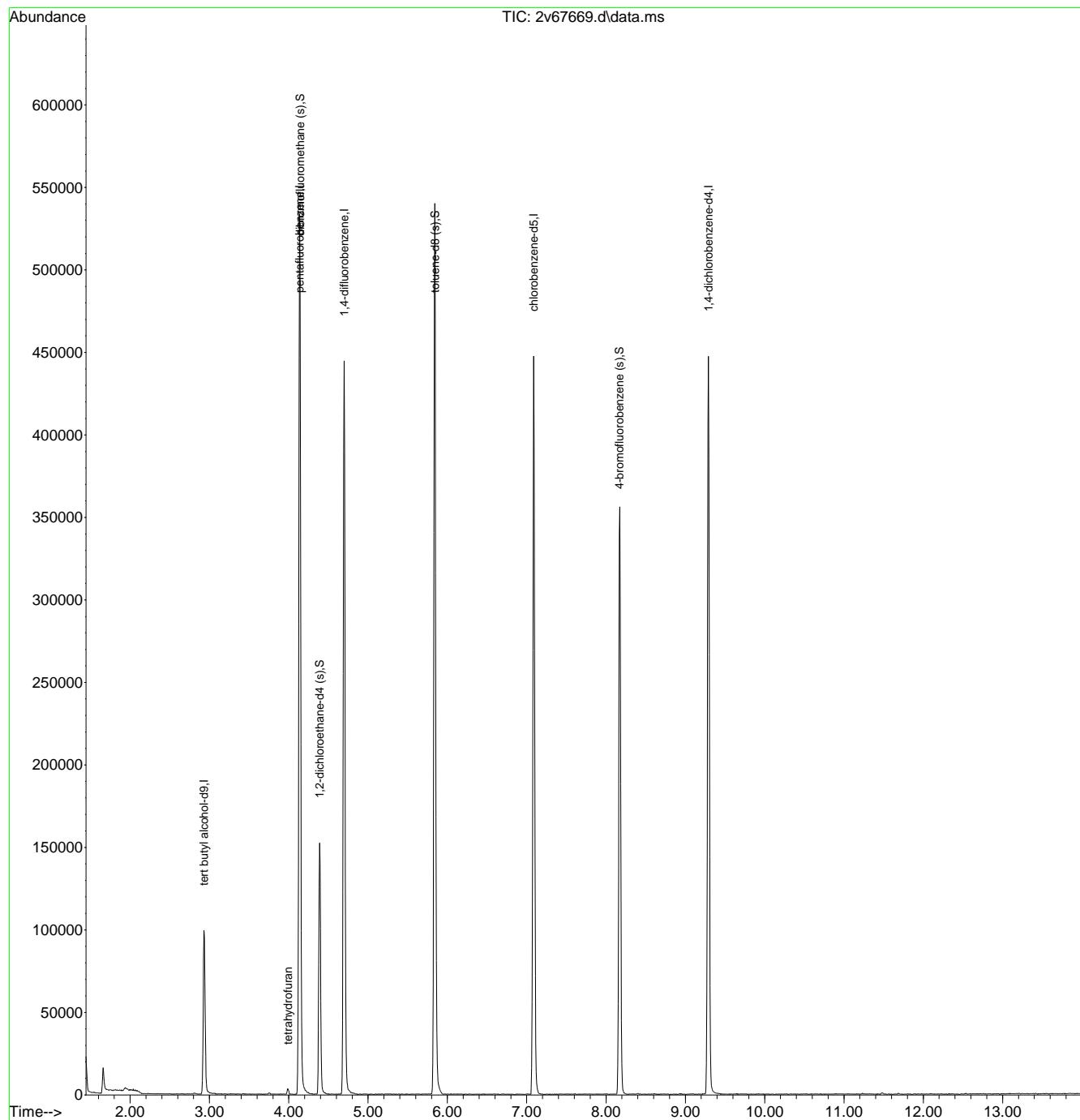
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert butyl alcohol-d9	2.931	65	97133	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	208646	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.698	114	324306	50.00	ug/L	0.00
74) chlorobenzene-d5	7.089	117	244480	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.291	152	128045	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	95471	51.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	102.76%	
53) 1,2-dichloroethane-d4 (s)	4.389	65	91561	46.74	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	=	93.48%	
75) toluene-d8 (s)	5.841	98	345704	55.47	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	110.94%	
99) 4-bromofluorobenzene (s)	8.169	95	118095	50.05	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	=	100.10%	
<hr/>						
Target Compounds						
42) tetrahydrofuran	3.990	71	490	1.81	ug/L	91
<hr/>						

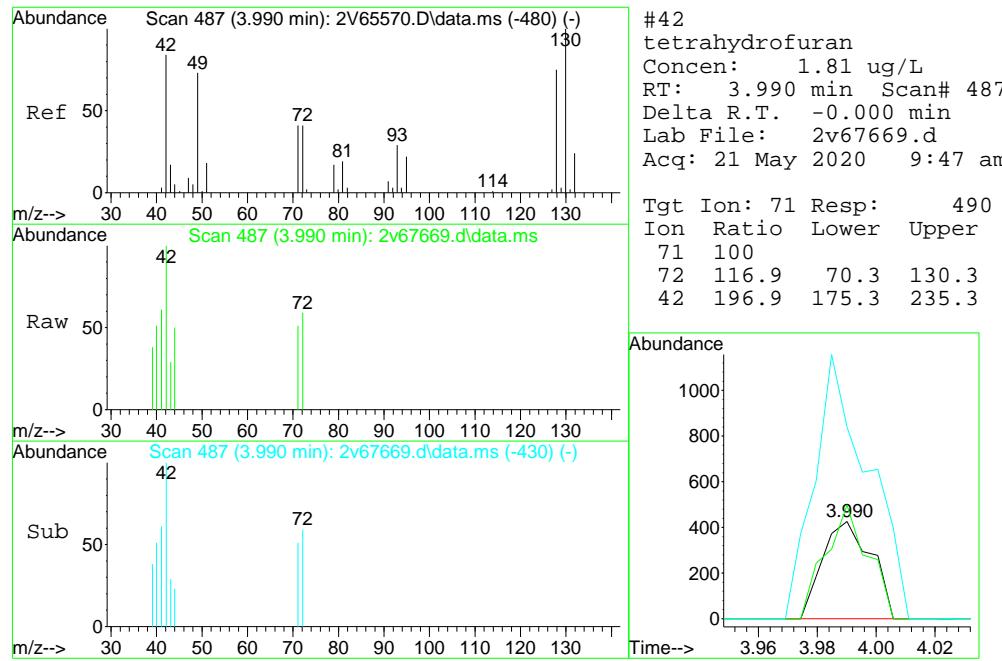
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67669.d
 Acq On : 21 May 2020 9:47 am
 Operator : ROBERTS
 Sample : MB Inst : MS2V
 Misc : MS37677,V2V2800,5,,,.1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 21:39:40 2020
 Quant Title : SW 846 Method 8260C, Rx-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration





7.2.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258163.d
 Acq On : 20 May 2020 9:52 am
 Operator : edwardd
 Sample : bs Inst : MSA
 Misc : MS43183,VA10060,5,,,
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:42:07 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.115	65	312694	500.00	ug/L	-0.02
5) pentafluorobenzene	10.495	168	167132	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.462	114	253629	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.857	117	232189	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.472	152	135843	50.00	ug/L	-0.02
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.531	113	81047	44.28	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	88.56%	
53) 1,2-dichloroethane-d4 (s)	10.965	65	92372	46.72	ug/L	-0.03
Spiked Amount 50.000	Range 81 - 124		Recovery	=	93.44%	
75) toluene-d8 (s)	13.188	98	301863	45.96	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	91.92%	
99) 4-bromofluorobenzene (s)	16.159	95	101677	42.53	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	85.06%	
Target Compounds						
3) tertiary butyl alcohol	8.235	59	180745	237.42	ug/L	97
4) 1,4-dioxane	12.132	88	67475	1302.75	ug/L	99
7) dichlorodifluoromethane	4.485	85	278229	62.12	ug/L	100
8) chloromethane	4.914	50	318756	49.05	ug/L	99
9) vinyl chloride	5.181	62	297567	45.22	ug/L	99
10) 1,3-butadiene	5.217	54	148468	46.01	ug/L	97
11) bromomethane	5.861	94	187718	45.94	ug/L	97
12) chloroethane	6.049	64	124973	47.51	ug/L	98
13) vinyl bromide	6.426	106	113287	47.16	ug/L	99
14) trichlorofluoromethane	6.562	101	207103	52.99	ug/L	98
15) ethyl ether	6.980	74	51874	45.10	ug/L	96
16) acrolein	7.215	56	23982	43.36	ug/L	94
17) freon 113	7.445	151	97161	57.21	ug/L	96
18) 1,1-dichloroethene	7.430	96	94746	48.18	ug/L	97
19) acetone	7.425	43	197114	187.58	ug/L	100
20) acetonitrile	7.859	41	265380	531.96	ug/L	97
21) iodomethane	7.697	142	189363	64.55	ug/L	96
22) carbon disulfide	7.853	76	284635	45.78	ug/L	96
23) methylene chloride	8.178	84	105365	44.98	ug/L	97
24) methyl acetate	7.916	43	104079	46.31	ug/L	98
25) methyl tert butyl ether	8.570	73	358007	57.04	ug/L	99
26) trans-1,2-dichloroethene	8.591	96	89594	47.62	ug/L	97
27) hexane	8.978	57	125386	53.50	ug/L	100
28) di-isopropyl ether	9.187	45	352057	48.46	ug/L	97
29) ethyl tert-butyl ether	9.673	59	364145	58.02	ug/L	99
30) 2-butanone	9.862	72	70424	181.65	ug/L	89
31) 1,1-dichloroethane	9.192	63	161990	45.10	ug/L	99
32) chloroprene	9.307	53	127700	44.09	ug/L	99
33) acrylonitrile	8.476	53	52670	49.83	ug/L	92
34) vinyl acetate	9.130	86	20341	46.01	ug/L #	88
35) ethyl acetate	9.883	45	19672	41.21	ug/L #	89
36) 2,2-dichloropropane	9.982	77	178306	54.75	ug/L	100
37) cis-1,2-dichloroethene	9.940	96	101854	46.43	ug/L	97
38) methyl acrylate	9.972	85	18615	45.85	ug/L #	84
39) propionitrile	9.930	54	247503	543.04	ug/L #	71
40) bromochloromethane	10.244	128	49649	48.06	ug/L	98
41) tetrahydrofuran	10.275	42	46412	46.22	ug/L	98
42) chloroform	10.332	83	156256	44.81	ug/L	98
43) tert-butyl formate	10.374	59	109228	56.03	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258163.d
 Acq On : 20 May 2020 9:52 am
 Operator : edwardd
 Sample : bs Inst : MSA
 Misc : MS43183,VA10060,5,,,
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:42:07 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
45) methacrylonitrile	10.144	67	49012	44.70	ug/L	94
46) cyclohexane	10.740	84	178579	54.60	ug/L	91
47) 1,1,1-trichloroethane	10.615	97	174298	52.39	ug/L	96
48) iso-butyl alcohol	10.730	43	182777	483.45	ug/L	97
49) 1,1-dichloropropene	10.788	75	118388	44.51	ug/L	99
50) carbon tetrachloride	10.824	117	143434	52.35	ug/L	99
51) tert-amyl alcohol	10.908	73	87226	252.63	ug/L	95
54) benzene	11.044	78	361269	51.90	ug/L	99
55) iso-octane	11.148	57	351895	62.79	ug/L	99
56) tert-amyl methyl ether	11.127	73	355130	63.02	ug/L	98
57) heptane	11.311	71	67399	59.51	ug/L	97
58) isopropyl acetate	10.934	87	28644	55.05	ug/L	99
59) 1,2-dichloroethane	11.059	62	118833	45.40	ug/L	99
60) n-butyl alcohol	11.504	41	290057	2861.15	ug/L	97
61) ethyl acrylate	11.760	55	145997	50.83	ug/L	100
62) trichloroethylene	11.792	95	86555	52.41	ug/L	96
63) 2-nitropropane	12.566	41	50756	51.87	ug/L	91
64) methylcyclohexane	12.116	83	192782	62.37	ug/L	99
65) 2-chloroethyl vinyl ether	12.602	63	309136	282.99	ug/L	99
66) methyl methacrylate	12.043	100	27967	54.79	ug/L	# 87
67) 1,2-dichloropropane	12.085	63	92766	51.98	ug/L	99
68) dibromomethane	12.205	93	57831	49.25	ug/L	89
69) bromodichloromethane	12.362	83	119970	52.39	ug/L	99
70) epichlorohydrin	12.697	57	81949	279.86	ug/L	99
71) cis-1,3-dichloropropene	12.848	75	141447	51.75	ug/L	97
72) 4-methyl-2-pentanone	12.953	58	257064	216.21	ug/L	99
73) 3-methyl-1-butanol	12.953	55	273416	1140.10	ug/L	96
76) toluene	13.267	92	216792	49.72	ug/L	98
77) trans-1,3-dichloropropene	13.455	75	130047	48.67	ug/L	98
78) ethyl methacrylate	13.444	69	130021	49.10	ug/L	97
79) 1,1,2-trichloroethane	13.706	83	69073	51.00	ug/L	94
80) 2-hexanone	13.873	58	225187	198.43	ug/L	98
81) tetrachloroethene	13.884	166	93328	55.78	ug/L	96
82) 1,3-dichloropropane	13.899	76	133437	48.17	ug/L	98
83) butyl acetate	13.962	56	81032	51.25	ug/L	97
84) dibromochloromethane	14.177	129	90523	54.60	ug/L	98
85) 1,2-dibromoethane	14.349	107	98861	55.84	ug/L	98
86) n-butyl ether	14.836	57	391934	49.07	ug/L	99
87) chlorobenzene	14.893	112	230458	51.68	ug/L	99
88) 1,1,1,2-tetrachloroethane	14.961	131	109832	57.21	ug/L	96
89) ethylbenzene	14.956	91	404740	51.99	ug/L	99
90) m,p-xylene	15.092	106	314769	108.03	ug/L	97
91) o-xylene	15.542	106	175399	55.90	ug/L	96
92) styrene	15.552	104	258236	52.08	ug/L	98
93) butyl acrylate	15.333	55	202551	49.87	ug/L	98
94) n-amyl acetate	15.568	70	87550	50.10	ug/L	97
95) bromoform	15.808	173	66867	59.79	ug/L	99
96) isopropylbenzene	15.934	105	474182	57.83	ug/L	99
97) cis-1,4-dichloro-2-butene	15.960	75	52529	54.29	ug/L	96
100) bromobenzene	16.373	156	102262	49.15	ug/L	92
101) 1,1,2,2-tetrachloroethane	16.237	83	151493	48.20	ug/L	98
102) trans-1,4-dichloro-2-b...	16.269	53	38506	47.10	ug/L	97
103) 1,2,3-trichloropropane	16.337	110	39109	47.80	ug/L	96
104) n-propylbenzene	16.399	91	496844	47.92	ug/L	99
105) 2-chlorotoluene	16.556	126	106826	48.98	ug/L	94
106) 4-chlorotoluene	16.682	91	272981	46.23	ug/L	97
107) 1,3,5-trimethylbenzene	16.572	105	401097	50.75	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258163.d
 Acq On : 20 May 2020 9:52 am
 Operator : edwardd
 Sample : bs Inst : MSA
 Misc : MS43183,VA10060,5,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:42:07 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
108) tert-butylbenzene	16.959	119	344466	51.44	ug/L	97
109) 1,2,4-trimethylbenzene	17.017	105	386024	50.68	ug/L	99
110) sec-butylbenzene	17.205	105	531927	52.90	ug/L	98
111) 1,3-dichlorobenzene	17.398	146	199681	50.38	ug/L	96
112) p-isopropyltoluene	17.346	119	435217	53.66	ug/L	98
113) 1,4-dichlorobenzene	17.503	146	201505	49.89	ug/L	96
114) 1,2-dichlorobenzene	17.921	146	216366	52.87	ug/L	97
115) n-butylbenzene	17.806	92	207378	49.69	ug/L	99
116) 1,2-dibromo-3-chloropr...	18.769	157	52476	64.39	ug/L	87
117) 1,3,5-trichlorobenzene	18.988	180	194654	60.22	ug/L	98
118) 2-ethylhexyl acrylate	19.710	70	27255	10.88	ug/L	96
119) 1,2,4-trichlorobenzene	19.731	180	201934	65.86	ug/L	100
120) hexachlorobutadiene	19.862	225	76090	64.17	ug/L	98
121) naphthalene	20.061	128	694465	68.54	ug/L	100
122) 1,2,3-trichlorobenzene	20.306	180	226370	73.23	ug/L	97
123) hexachloroethane	18.256	201	76794	61.62	ug/L	96
124) 2-methylnaphthalene	21.368	142	204785	37.32	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.3.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\

Data File : a258163.d

Acq On : 20 May 2020 9:52 am

Operator : edwardd

Sample : bs

Inst : MSA

Misc : MS43183,VA10060,5,,,,1

ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M

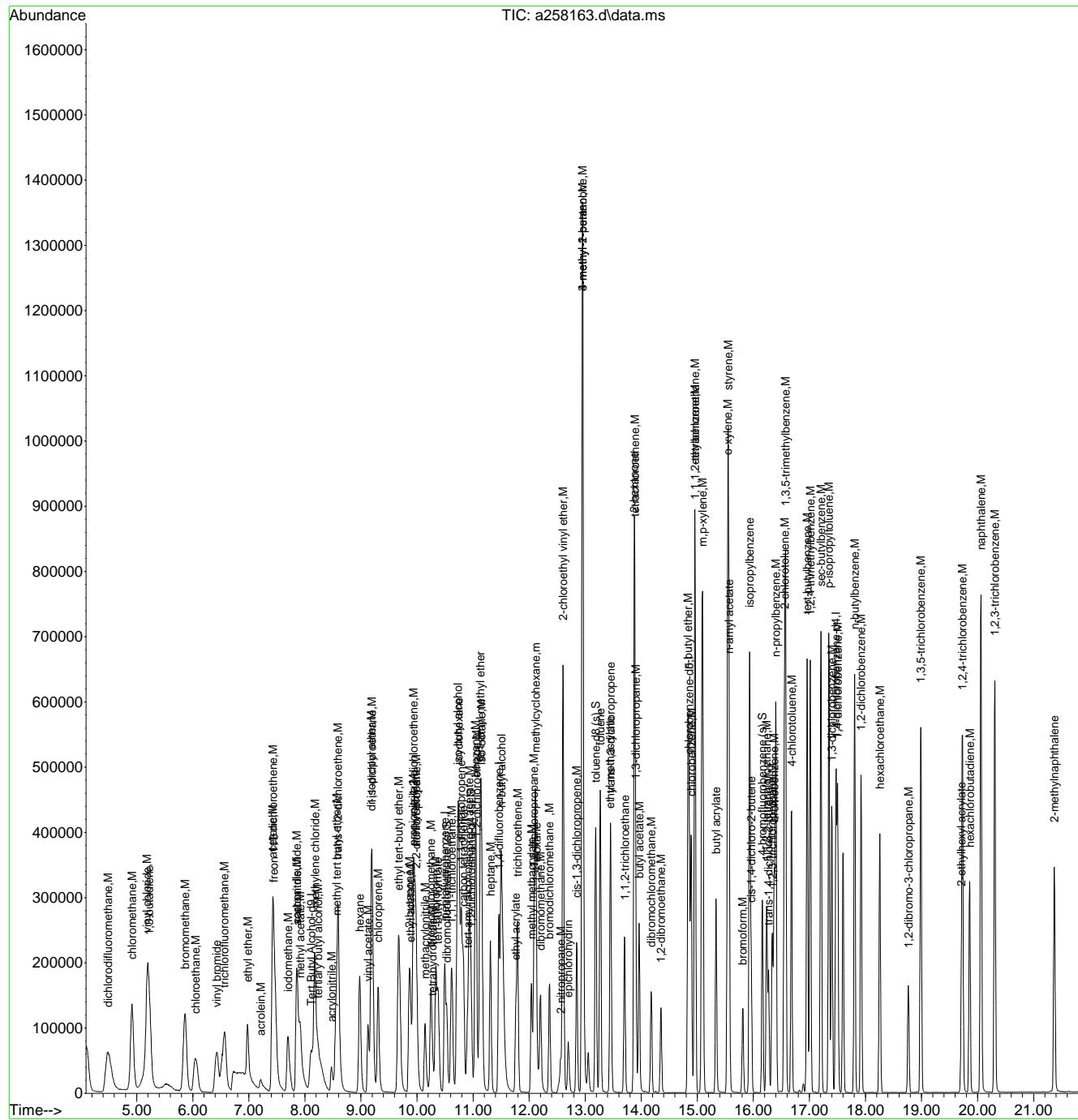
Quant Results File: MA9958.RES

Quant Time: May 20 22:42:07 2020

Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um

QLast Update : Wed Feb 05 10:36:55 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67667.d
 Acq On : 21 May 2020 8:56 am
 Operator : ROBERTS
 Sample : BS Inst : MS2V
 Misc : MS37677,V2V2800,5,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 21:38:20 2020
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	98904	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	222231	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.698	114	320771	50.00	ug/L	0.00
74) chlorobenzene-d5	7.089	117	266712	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.291	152	130560	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	100384	50.72	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 101.44%		
53) 1,2-dichloroethane-d4 (s)	4.388	65	90701	46.81	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 93.62%		
75) toluene-d8 (s)	5.841	98	337153	49.58	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 99.16%		
99) 4-bromofluorobenzene (s)	8.174	95	120814	50.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 100.42%		
Target Compounds						
2) ethanol	2.375	45	152668	4974.80	ug/L	99
3) tertiary butyl alcohol	2.989	59	82379	216.15	ug/L	94
4) 1,4-dioxane	5.128	88	42129	1267.41	ug/L	95
7) dichlorodifluoromethane	1.568	85	158816	63.17	ug/L	99
8) chloromethane	1.715	50	118987	54.61	ug/L	99
9) vinyl chloride	1.798	62	124544	51.41	ug/L	100
10) bromomethane	2.040	96	58280	47.17	ug/L	97
11) chloroethane	2.113	64	65161	51.56	ug/L	99
12) trichlorofluoromethane	2.291	101	199108	55.17	ug/L	100
13) vinyl bromide	2.249	106	81917	50.65	ug/L	98
14) 1,3-butadiene	1.825	54	86744	52.57	ug/L	97
15) ethyl ether	2.470	74	58837	56.82	ug/L	94
17) acrolein	2.564	56	16683	58.82	ug/L	98
18) freon 113	2.637	151	94561	54.02	ug/L	95
19) 1,1-dichloroethene	2.643	61	154618	55.75	ug/L	96
20) acetone	2.648	58	39726	217.66	ug/L	94
21) acetonitrile	2.831	41	139114	525.58	ug/L	96
22) iodomethane	2.753	142	84472	81.69	ug/L	98
23) carbon disulfide	2.810	76	245205	56.06	ug/L	94
24) methylene chloride	2.962	84	111549	55.60	ug/L	94
25) methyl acetate	2.852	43	83461	50.52	ug/L	98
26) methyl tert butyl ether	3.125	73	310819	54.19	ug/L	98
27) trans-1,2-dichloroethene	3.141	96	110906	59.19	ug/L	99
28) hexane	3.319	56	65759	56.09	ug/L	97
29) di-isopropyl ether	3.429	45	308557	55.25	ug/L	94
30) ethyl tert-butyl ether	3.670	59	308172	53.34	ug/L	99
31) 1,1-dichloroethane	3.429	63	179565	55.42	ug/L	99
32) chloroprene	3.481	53	144493	54.01	ug/L	98
33) acrylonitrile	3.099	53	40283	54.13	ug/L	94
34) vinyl acetate	3.403	86	23201	56.93	ug/L #	93
35) ethyl acetate	3.796	45	17734	51.40	ug/L #	77
36) 2-butanone	3.786	72	52021	195.65	ug/L	95
37) 2,2-dichloropropane	3.822	77	163235	53.14	ug/L	98
38) cis-1,2-dichloroethene	3.812	96	118868	53.37	ug/L	99
39) propionitrile	3.828	54	156571	579.01	ug/L	94
40) methyl acrylate	3.838	85	17594	49.51	ug/L #	80
41) bromochloromethane	3.974	128	61162	54.53	ug/L	93
42) tetrahydrofuran	3.985	71	14201	49.33	ug/L	96
43) chloroform	4.032	83	200096	52.54	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67667.d
 Acq On : 21 May 2020 8:56 am
 Operator : ROBERTS
 Sample : BS Inst : MS2V
 Misc : MS37677,V2V2800,5,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 21:38:20 2020
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
45) methacrylonitrile	3.938	67	43090	53.23	ug/L	98
46) 1,1,1-trichloroethane	4.174	97	184130	53.70	ug/L	99
47) cyclohexane	4.231	84	135802	53.62	ug/L	93
48) 1,1-dichloropropene	4.278	75	142619	52.66	ug/L	97
49) carbon tetrachloride	4.284	119	163527	53.15	ug/L	99
50) isobutyl alcohol	4.278	42	35027	500.55	ug/L	98
51) tert-amyl alcohol	4.373	55	27695	258.01	ug/L	86
54) n-butyl alcohol	4.756	56	209597	2605.81	ug/L	93
55) benzene	4.420	78	391302	50.17	ug/L	98
56) tert-amyl methyl ether	4.488	73	310984	48.73	ug/L	99
57) iso-octane	4.493	57	214880	48.49	ug/L	96
58) heptane	4.603	57	49964	49.93	ug/L	99
59) isopropyl acetate	4.399	87	25445	46.93	ug/L	98
60) 1,2-dichloroethane	4.446	62	150214	47.76	ug/L	99
61) trichloroethene	4.892	95	118849	54.59	ug/L	99
62) ethyl acrylate	4.908	55	146629	50.84	ug/L	99
63) 2-nitropropane	5.432	41	26565	43.57	ug/L	91
64) 2-chloroethyl vinyl ether	5.469	63	359520	251.63	ug/L	98
65) methyl methacrylate	5.091	100	33206	51.69	ug/L #	77
66) 1,2-dichloropropane	5.086	63	104515	53.21	ug/L	97
67) methylcyclohexane	5.081	83	155042	50.34	ug/L	96
68) dibromomethane	5.154	93	75905	49.66	ug/L	96
69) bromodichloromethane	5.275	83	158276	53.54	ug/L	99
70) epichlorohydrin	5.521	57	63056	251.98	ug/L	99
71) cis-1,3-dichloropropene	5.615	75	176551	54.40	ug/L	92
72) 4-methyl-2-pentanone	5.710	58	181015	209.02	ug/L	96
73) 3-methyl-1-butanol	5.736	70	76089	955.14	ug/L	97
76) toluene	5.899	92	260535	51.11	ug/L	96
77) ethyl methacrylate	6.092	69	136818	51.03	ug/L	100
78) trans-1,3-dichloropropene	6.066	75	159864	52.17	ug/L	96
79) 1,1,2-trichloroethane	6.234	83	83286	50.20	ug/L	98
80) 2-hexanone	6.402	58	174347	202.95	ug/L	94
81) tetrachloroethene	6.334	164	101151	51.78	ug/L	97
82) 1,3-dichloropropane	6.381	76	147962	48.74	ug/L	98
83) butyl acetate	6.491	56	70610	50.54	ug/L	97
84) dibromochloromethane	6.570	129	132577	52.94	ug/L	99
85) 1,2-dibromoethane	6.685	107	134004	55.29	ug/L	99
86) n-butyl ether	7.173	57	381427	50.36	ug/L	100
87) chlorobenzene	7.115	112	290753	48.26	ug/L	98
88) 1,1,1,2-tetrachloroethane	7.183	131	114181	51.73	ug/L	97
89) ethylbenzene	7.194	91	477461	49.88	ug/L	100
90) m,p-xylene	7.309	106	386012	105.61	ug/L	98
91) o-xylene	7.665	91	398449	53.63	ug/L	100
92) styrene	7.681	104	327335	55.44	ug/L	97
93) butyl acrylate	7.592	56	99303	56.21	ug/L #	89
94) n-amyl acetate	7.796	70	79836	55.51	ug/L	91
95) bromoform	7.854	173	96097	52.72	ug/L	99
96) isopropylbenzene	8.001	105	475120	53.08	ug/L	99
97) cis-1,4-dichloro-2-butene	8.053	88	47552	44.39	ug/L	96
100) bromobenzene	8.316	156	137743	48.87	ug/L	99
101) 1,1,2,2-tetrachloroethane	8.284	83	140497	48.66	ug/L	97
102) trans-1,4-dichloro-2-b...	8.321	53	33307	44.59	ug/L	97
103) 1,2,3-trichloropropane	8.347	110	41697	47.76	ug/L	93
104) n-propylbenzene	8.399	91	533292	50.92	ug/L	99
105) 2-chlorotoluene	8.494	126	118035	48.86	ug/L	95
106) 4-chlorotoluene	8.609	126	117108	50.25	ug/L	88
107) 1,3,5-trimethylbenzene	8.572	105	382613	51.35	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67667.d
 Acq On : 21 May 2020 8:56 am
 Operator : ROBERTS
 Sample : BS Inst : MS2V
 Misc : MS37677,V2V2800,5,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 21:38:20 2020
 Quant Title : SW 846 Method 8260C, RxI-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

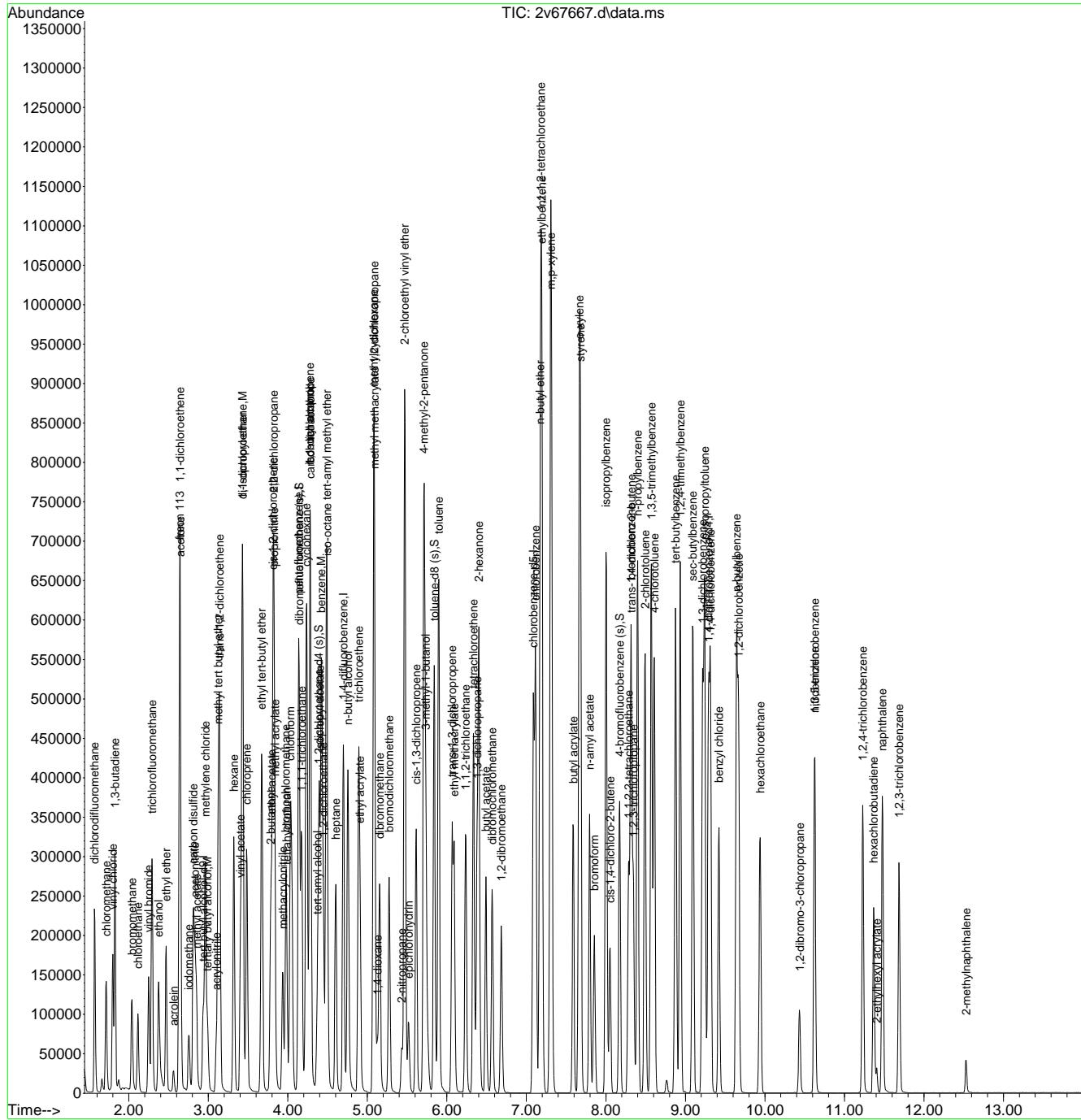
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
108) tert-butylbenzene	8.877	134	74086	50.50	ug/L	98
109) 1,2,4-trimethylbenzene	8.934	105	382711	51.40	ug/L	99
110) sec-butylbenzene	9.091	105	439224	50.93	ug/L	99
111) 1,3-dichlorobenzene	9.217	146	230350	50.21	ug/L	99
112) p-isopropyltoluene	9.244	119	375840	52.22	ug/L	97
113) 1,4-dichlorobenzene	9.317	146	233916	48.79	ug/L	97
114) 1,2-dichlorobenzene	9.668	146	218052	50.01	ug/L	99
115) benzyl chloride	9.422	91	247357	53.79	ug/L	99
116) n-butylbenzene	9.642	92	169092	53.64	ug/L	96
117) hexachloroethane	9.941	201	61594	47.15	ug/L	98
118) 1,2-dibromo-3-chloropr...	10.439	157	31747	46.33	ug/L	95
119) nitrobenzene	10.628	77	7311	64.12	ug/L	95
120) 1,3,5-trichlorobenzene	10.628	180	142003	49.14	ug/L	98
121) 1,2,4-trichlorobenzene	11.231	180	115305	46.68	ug/L	98
122) hexachlorobutadiene	11.367	225	47311	45.50	ug/L	97
123) naphthalene	11.477	128	306377	47.90	ug/L	100
124) 1,2,3-trichlorobenzene	11.687	180	96381	46.94	ug/L	99
125) 2-ethylhexyl acrylate	11.409	70	7936	6.75	ug/L	98
126) 2-methylnaphthalene	12.531	142	21762	19.55	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
Data File : 2v67667.d
Acq On : 21 May 2020 8:56 am
Operator : ROBERTS
Sample : BS Inst : MS2V
Misc : MS37677,V2V2800,5,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
Quant Results File: M2V2712.RES
Quant Time: May 21 21:38:20 2020
Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
QLast Update : Mon Mar 09 10:12:58 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258169.d
 Acq On : 20 May 2020 12:49 pm
 Operator : edwardd
 Sample : JD7282-9ms
 Inst : MSA
 Misc : MS43215,VA10060,5,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:53:32 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) Tert Butyl Alcohol-d9	8.144	65	299536	500.00	ug/L	0.00
5) pentafluorobenzene	10.492	168	176675	50.00	ug/L	-0.03
52) 1,4-difluorobenzene	11.460	114	272467	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.854	117	254427	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.474	152	148379	50.00	ug/L	-0.02
<hr/>						
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.529	113	88433	45.71	ug/L	-0.03
Spiked Amount 50.000	Range 80 - 120		Recovery	=	91.42%	
53) 1,2-dichloroethane-d4 (s)	10.963	65	96666	45.51	ug/L	-0.03
Spiked Amount 50.000	Range 81 - 124		Recovery	=	91.02%	
75) toluene-d8 (s)	13.191	98	325464	45.22	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	90.44%	
99) 4-bromofluorobenzene (s)	16.162	95	113298	43.38	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	86.76%	
<hr/>						
Target Compounds						
3) tertiary butyl alcohol	8.254	59	169789	232.82	ug/L	100
4) 1,4-dioxane	12.140	88	57229	1153.47	ug/L	98
7) dichlorodifluoromethane	4.483	85	289432	61.13	ug/L	99
8) chloromethane	4.917	50	302426	44.02	ug/L	100
9) vinyl chloride	5.184	62	296230	42.59	ug/L	96
10) 1,3-butadiene	5.220	54	139936	41.03	ug/L	97
11) bromomethane	5.864	94	182902	42.35	ug/L	99
12) chloroethane	6.057	64	122500	44.05	ug/L	94
13) vinyl bromide	6.423	106	109241	43.02	ug/L	99
14) trichlorofluoromethane	6.564	101	222640	53.89	ug/L	99
15) ethyl ether	6.978	74	45225	37.20	ug/L	95
16) acrolein	7.208	56	23138	39.58	ug/L	95
17) freon 113	7.453	151	100637	56.05	ug/L	93
18) 1,1-dichloroethene	7.433	96	89706	43.15	ug/L	97
19) acetone	7.422	43	161075	145.01	ug/L	96
20) acetonitrile	7.856	41	220408	417.95	ug/L	93
21) iodomethane	7.699	142	174031	56.12	ug/L	95
22) carbon disulfide	7.856	76	261075	39.72	ug/L	98
23) methylene chloride	8.175	84	94668	38.23	ug/L	95
24) methyl acetate	7.919	43	85109	35.83	ug/L	98
25) methyl tert butyl ether	8.568	73	317079	47.79	ug/L	98
26) trans-1,2-dichloroethene	8.594	96	85236	42.85	ug/L	95
27) hexane	8.975	57	129013	52.07	ug/L	99
28) di-isopropyl ether	9.190	45	317487	41.34	ug/L	94
29) ethyl tert-butyl ether	9.671	59	328676	49.54	ug/L	99
30) 2-butanone	9.859	72	64398	157.13	ug/L	98
31) 1,1-dichloroethane	9.195	63	151826	39.98	ug/L	97
32) chloroprene	9.305	53	121323	39.63	ug/L	97
33) acrylonitrile	8.473	53	45073	40.34	ug/L	94
34) vinyl acetate	9.122	86	18628	39.86	ug/L #	84
35) ethyl acetate	9.886	45	16732	33.15	ug/L #	74
36) 2,2-dichloropropane	9.980	77	173430	50.38	ug/L	98
37) cis-1,2-dichloroethene	9.938	96	99955	43.10	ug/L	95
38) methyl acrylate	9.969	85	16606	38.70	ug/L #	72
39) propionitrile	9.933	54	220821	458.33	ug/L	88
40) bromochloromethane	10.246	128	47867	43.83	ug/L	92
41) tetrahydrofuran	10.267	42	39024	36.77	ug/L	96
42) chloroform	10.335	83	150802	40.91	ug/L	96
43) tert-butyl formate	10.372	59	70789	34.35	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258169.d
 Acq On : 20 May 2020 12:49 pm
 Operator : edwardd
 Sample : JD7282-9ms
 Inst : MSA
 Misc : MS43215,VA10060,5,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:53:32 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
45) methacrylonitrile	10.142	67	45093	38.90	ug/L	99
46) cyclohexane	10.743	84	209172	60.50	ug/L	# 76
47) 1,1,1-trichloroethane	10.618	97	167085	47.51	ug/L	95
48) iso-butyl alcohol	10.728	43	171738	429.71	ug/L	94
49) 1,1-dichloropropene	10.790	75	116108	41.29	ug/L	97
50) carbon tetrachloride	10.827	117	143303	49.48	ug/L	98
51) tert-amyl alcohol	10.911	73	79464	217.72	ug/L	97
54) benzene	11.041	78	348047	46.55	ug/L	100
55) iso-octane	11.151	57	362943	60.29	ug/L	100
56) tert-amyl methyl ether	11.125	73	330046	54.52	ug/L	99
57) heptane	11.308	71	73541	60.45	ug/L	94
58) isopropyl acetate	10.937	87	26322	47.09	ug/L	99
59) 1,2-dichloroethane	11.057	62	114346	40.67	ug/L	98
60) n-butyl alcohol	11.502	41	251894	2312.91	ug/L	100
61) ethyl acrylate	11.763	55	133888	43.39	ug/L	98
62) trichloroethylene	11.795	95	86305	48.65	ug/L	94
63) 2-nitropropane	12.563	41	32278	30.71	ug/L	90
64) methylcyclohexane	12.114	83	202491	60.98	ug/L	98
66) methyl methacrylate	12.040	100	27145	49.50	ug/L	89
67) 1,2-dichloropropane	12.087	63	90146	47.02	ug/L	99
68) dibromomethane	12.202	93	56701	44.95	ug/L	90
69) bromodichloromethane	12.359	83	119833	48.72	ug/L	100
70) epichlorohydrin	12.699	57	69453	220.78	ug/L	98
71) cis-1,3-dichloropropene	12.846	75	141188	48.08	ug/L	97
72) 4-methyl-2-pentanone	12.950	58	247842	194.04	ug/L	98
73) 3-methyl-1-butanol	12.950	55	258898	1004.93	ug/L	95
76) toluene	13.269	92	225519	47.20	ug/L	98
77) trans-1,3-dichloropropene	13.458	75	126457	43.19	ug/L	97
78) ethyl methacrylate	13.447	69	127450	43.93	ug/L	95
79) 1,1,2-trichloroethane	13.704	83	68070	45.86	ug/L	95
80) 2-hexanone	13.876	58	215378	173.20	ug/L	98
81) tetrachloroethene	13.881	166	99916	54.50	ug/L	99
82) 1,3-dichloropropane	13.902	76	130817	43.10	ug/L	98
83) butyl acetate	13.960	56	77855	44.94	ug/L	95
84) dibromochloromethane	14.179	129	92711	51.04	ug/L	100
85) 1,2-dibromoethane	14.352	107	99584	51.34	ug/L	97
86) n-butyl ether	14.833	57	399790	45.68	ug/L	100
87) chlorobenzene	14.891	112	239998	49.11	ug/L	98
88) 1,1,1,2-tetrachloroethane	14.964	131	112949	53.69	ug/L	96
89) ethylbenzene	14.954	91	433848	50.86	ug/L	99
90) m,p-xylene	15.089	106	337783	105.80	ug/L	98
91) o-xylene	15.545	106	185815	54.04	ug/L	98
92) styrene	15.550	104	268482	49.42	ug/L	99
93) butyl acrylate	15.335	55	200624	45.08	ug/L	98
94) n-amyl acetate	15.565	70	87596	45.74	ug/L	97
95) bromoform	15.811	173	68550	55.93	ug/L	98
96) isopropylbenzene	15.932	105	511392	56.91	ug/L	98
97) cis-1,4-dichloro-2-butene	15.963	75	50717	47.84	ug/L	96
100) bromobenzene	16.371	156	107491	47.30	ug/L	94
101) 1,1,2,2-tetrachloroethane	16.240	83	152690	44.48	ug/L	97
102) trans-1,4-dichloro-2-b...	16.272	53	36512	40.89	ug/L	97
103) 1,2,3-trichloropropane	16.334	110	38509	43.09	ug/L	97
104) n-propylbenzene	16.402	91	535920	47.32	ug/L	98
105) 2-chlorotoluene	16.554	126	114298	47.98	ug/L	94
106) 4-chlorotoluene	16.679	91	285735	44.30	ug/L	98
107) 1,3,5-trimethylbenzene	16.575	105	431807	50.02	ug/L	98
108) tert-butylbenzene	16.962	119	379874	51.93	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258169.d
 Acq On : 20 May 2020 12:49 pm
 Operator : edwardd
 Sample : JD7282-9ms Inst : MSA
 Misc : MS43215,VA10060,5,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:53:32 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
109) 1,2,4-trimethylbenzene	17.014	105	416881	50.10	ug/L	99
110) sec-butylbenzene	17.208	105	585544	53.32	ug/L	97
111) 1,3-dichlorobenzene	17.401	146	214224	49.48	ug/L	97
112) p-isopropyltoluene	17.349	119	468620	52.90	ug/L	98
113) 1,4-dichlorobenzene	17.506	146	215223	48.78	ug/L	98
114) 1,2-dichlorobenzene	17.924	146	229119	51.25	ug/L	97
115) n-butylbenzene	17.804	92	228641	50.16	ug/L	97
116) 1,2-dibromo-3-chloropr...	18.766	157	51261	57.58	ug/L	94
117) 1,3,5-trichlorobenzene	18.986	180	208794	59.14	ug/L	98
118) 2-ethylhexyl acrylate	19.708	70	26579	9.71	ug/L	98
119) 1,2,4-trichlorobenzene	19.729	180	216866	64.76	ug/L	99
120) hexachlorobutadiene	19.859	225	85393	65.93	ug/L	97
121) naphthalene	20.063	128	706287	63.82	ug/L	99
122) 1,2,3-trichlorobenzene	20.309	180	232826	68.96	ug/L	96
123) hexachloroethane	18.254	201	81299	59.72	ug/L	95
124) 2-methylnaphthalene	21.371	142	217585	36.31	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\val0060\

Data File : a258169.d

Acq On : 20 May 2020 12:49 pm

Operator : edwardd

Sample : JD7282-9ms

Misc : MS43215,VA10060,5,,,1

Inst : MSA

ALS Vial : 9 Sample Multiplier:

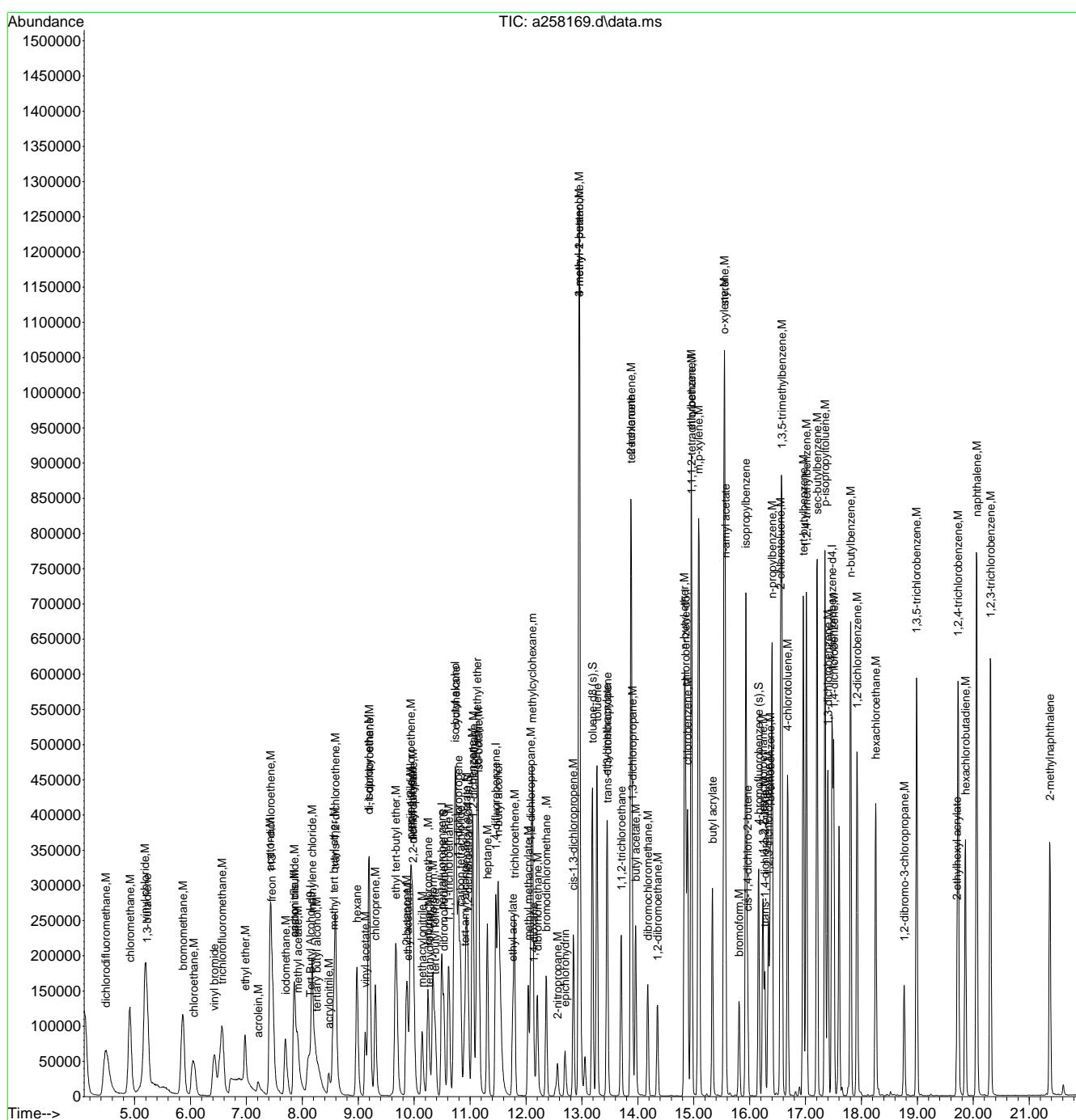
Quant Method : C:\MSDCHEM\1\METH

Quant Results File: MA9958.RES

Quant Time: May 20 22:53:32 2020

Quant Title : SW-846 8260C/EPA 6

QLast Update : Wed Feb 05 10:36:59



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258170.d
 Acq On : 20 May 2020 1:18 pm
 Operator : edwardd
 Sample : JD7282-9msd
 Inst : MSA
 Misc : MS43215,VA10060,5,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:53:46 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) Tert Butyl Alcohol-d9	8.154	65	314471	500.00	ug/L	0.01
5) pentafluorobenzene	10.497	168	192766	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.460	114	289821	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.854	117	267646	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.474	152	158079	50.00	ug/L	-0.02
<hr/>						
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.529	113	95234	45.12	ug/L	-0.03
Spiked Amount 50.000	Range 80 - 120		Recovery	=	90.24%	
53) 1,2-dichloroethane-d4 (s)	10.968	65	103309	45.72	ug/L	-0.03
Spiked Amount 50.000	Range 81 - 124		Recovery	=	91.44%	
75) toluene-d8 (s)	13.191	98	348466	46.03	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	92.06%	
99) 4-bromofluorobenzene (s)	16.161	95	119956	43.12	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	86.24%	
<hr/>						
Target Compounds						
3) tertiary butyl alcohol	8.269	59	176335	230.32	ug/L	95
4) 1,4-dioxane	12.140	88	56773	1089.93	ug/L	98
7) dichlorodifluoromethane	4.493	85	302122	58.49	ug/L	97
8) chloromethane	4.917	50	315396	42.08	ug/L	100
9) vinyl chloride	5.183	62	309621	40.79	ug/L	98
10) 1,3-butadiene	5.225	54	148687	39.95	ug/L	99
11) bromomethane	5.869	94	189282	40.16	ug/L	96
12) chloroethane	6.046	64	127647	42.07	ug/L	96
13) vinyl bromide	6.433	106	116170	41.93	ug/L	99
14) trichlorofluoromethane	6.569	101	235705	52.29	ug/L	95
15) ethyl ether	6.983	74	46820	35.30	ug/L	98
16) acrolein	7.213	56	23908	37.48	ug/L	98
17) freon 113	7.459	151	106949	54.59	ug/L	93
18) 1,1-dichloroethene	7.432	96	94923	41.85	ug/L	97
19) acetone	7.422	43	175386	144.71	ug/L	99
20) acetonitrile	7.867	41	230269	400.20	ug/L	99
21) iodomethane	7.704	142	187267	55.34	ug/L	94
22) carbon disulfide	7.856	76	278351	38.82	ug/L	97
23) methylene chloride	8.175	84	101492	37.56	ug/L	96
24) methyl acetate	7.919	43	87795	33.87	ug/L	99
25) methyl tert butyl ether	8.567	73	334021	46.14	ug/L	97
26) trans-1,2-dichloroethene	8.593	96	90798	41.84	ug/L	94
27) hexane	8.981	57	135388	50.08	ug/L	99
28) di-isopropyl ether	9.195	45	330418	39.43	ug/L	96
29) ethyl tert-butyl ether	9.676	59	346091	47.81	ug/L	98
30) 2-butanone	9.864	72	66408	148.51	ug/L	95
31) 1,1-dichloroethane	9.195	63	160367	38.71	ug/L	99
32) chloroprene	9.305	53	130121	38.95	ug/L	98
33) acrylonitrile	8.478	53	48153	39.50	ug/L	98
34) vinyl acetate	9.132	86	18823	36.92	ug/L #	76
35) ethyl acetate	9.885	45	18571	33.73	ug/L #	73
36) 2,2-dichloropropane	9.985	77	182771	48.66	ug/L	98
37) cis-1,2-dichloroethene	9.938	96	104948	41.48	ug/L	95
38) methyl acrylate	9.974	85	17825	38.07	ug/L #	90
39) propionitrile	9.938	54	231269	439.94	ug/L	94
40) bromochloromethane	10.251	128	50357	42.26	ug/L	87
41) tetrahydrofuran	10.267	42	41778	36.08	ug/L	98
42) chloroform	10.335	83	161075	40.05	ug/L	97
43) tert-butyl formate	10.382	59	60152	26.75	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258170.d
 Acq On : 20 May 2020 1:18 pm
 Operator : edwardd
 Sample : JD7282-9msd Inst : MSA
 Misc : MS43215,VA10060,5,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:53:46 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
45) methacrylonitrile	10.147	67	47165	37.29	ug/L	98
46) cyclohexane	10.743	84	219989	58.31	ug/L #	76
47) 1,1,1-trichloroethane	10.618	97	181150	47.21	ug/L	97
48) iso-butyl alcohol	10.733	43	177222	406.42	ug/L	86
49) 1,1-dichloropropene	10.790	75	122968	40.08	ug/L	95
50) carbon tetrachloride	10.827	117	154113	48.77	ug/L	98
51) tert-amyl alcohol	10.910	73	83765	210.35	ug/L	96
54) benzene	11.041	78	366681	46.10	ug/L	99
55) iso-octane	11.151	57	380629	59.44	ug/L	97
56) tert-amyl methyl ether	11.130	73	349482	54.27	ug/L	97
57) heptane	11.308	71	77014	59.51	ug/L	97
58) isopropyl acetate	10.931	87	28380	47.73	ug/L	94
59) 1,2-dichloroethane	11.057	62	121598	40.65	ug/L	99
60) n-butyl alcohol	11.501	41	255769	2207.87	ug/L	98
61) ethyl acrylate	11.763	55	138527	42.20	ug/L	98
62) trichloroethylene	11.794	95	91404	48.44	ug/L	92
63) 2-nitropropane	12.563	41	35245	31.52	ug/L	99
64) methylcyclohexane	12.113	83	213462	60.44	ug/L	97
66) methyl methacrylate	12.040	100	28654	49.13	ug/L #	77
67) 1,2-dichloropropane	12.087	63	95021	46.59	ug/L	99
68) dibromomethane	12.202	93	60096	44.78	ug/L	91
69) bromodichloromethane	12.364	83	127758	48.83	ug/L	97
70) epichlorohydrin	12.699	57	68574	204.94	ug/L	99
71) cis-1,3-dichloropropene	12.851	75	146940	47.04	ug/L	97
72) 4-methyl-2-pentanone	12.950	58	260920	192.05	ug/L	98
73) 3-methyl-1-butanol	12.955	55	267958	977.81	ug/L	95
76) toluene	13.269	92	236311	47.01	ug/L	96
77) trans-1,3-dichloropropene	13.458	75	133968	43.49	ug/L	96
78) ethyl methacrylate	13.447	69	134556	44.08	ug/L	94
79) 1,1,2-trichloroethane	13.703	83	72657	46.54	ug/L	97
80) 2-hexanone	13.876	58	224442	171.58	ug/L	98
81) tetrachloroethene	13.881	166	106954	55.46	ug/L	97
82) 1,3-dichloropropane	13.902	76	136042	42.61	ug/L	99
83) butyl acetate	13.965	56	80941	44.41	ug/L	93
84) dibromochloromethane	14.179	129	100266	52.47	ug/L	99
85) 1,2-dibromoethane	14.352	107	104702	51.31	ug/L	100
86) n-butyl ether	14.833	57	425171	46.18	ug/L	99
87) chlorobenzene	14.891	112	255172	49.64	ug/L	97
88) 1,1,1,2-tetrachloroethane	14.959	131	121996	55.12	ug/L	100
89) ethylbenzene	14.959	91	460394	51.31	ug/L	99
90) m,p-xylene	15.089	106	355224	105.77	ug/L	99
91) o-xylene	15.544	106	199765	55.23	ug/L	99
92) styrene	15.555	104	285187	49.90	ug/L	97
93) butyl acrylate	15.335	55	208691	44.58	ug/L	98
94) n-amyl acetate	15.565	70	92327	45.83	ug/L	99
95) bromoform	15.811	173	72095	55.92	ug/L	97
96) isopropylbenzene	15.937	105	546901	57.86	ug/L	98
97) cis-1,4-dichloro-2-butene	15.963	75	50506	45.28	ug/L	97
100) bromobenzene	16.371	156	113747	46.98	ug/L	91
101) 1,1,2,2-tetrachloroethane	16.235	83	160070	43.77	ug/L	99
102) trans-1,4-dichloro-2-b...	16.271	53	38357	40.32	ug/L	95
103) 1,2,3-trichloropropane	16.339	110	41597	43.69	ug/L	97
104) n-propylbenzene	16.402	91	565194	46.84	ug/L	99
105) 2-chlorotoluene	16.554	126	121276	47.79	ug/L	95
106) 4-chlorotoluene	16.679	91	301226	43.84	ug/L	98
107) 1,3,5-trimethylbenzene	16.575	105	457484	49.74	ug/L	96
108) tert-butylbenzene	16.962	119	404618	51.92	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258170.d
 Acq On : 20 May 2020 1:18 pm
 Operator : edwardd
 Sample : JD7282-9msd Inst : MSA
 Misc : MS43215,VA10060,5,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:53:46 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
109) 1,2,4-trimethylbenzene	17.014	105	441712	49.83	ug/L	99
110) sec-butylbenzene	17.208	105	624773	53.40	ug/L	99
111) 1,3-dichlorobenzene	17.401	146	229536	49.77	ug/L	93
112) p-isopropyltoluene	17.349	119	504905	53.50	ug/L	98
113) 1,4-dichlorobenzene	17.506	146	229476	48.82	ug/L	96
114) 1,2-dichlorobenzene	17.924	146	241086	50.62	ug/L	96
115) n-butylbenzene	17.809	92	243319	50.11	ug/L	96
116) 1,2-dibromo-3-chloropr...	18.766	157	54678	57.65	ug/L	92
117) 1,3,5-trichlorobenzene	18.986	180	222090	59.05	ug/L	97
118) 2-ethylhexyl acrylate	19.708	70	28383	9.73	ug/L	93
119) 1,2,4-trichlorobenzene	19.728	180	227022	63.63	ug/L	99
120) hexachlorobutadiene	19.859	225	90043	65.26	ug/L	98
121) naphthalene	20.063	128	725831	61.56	ug/L	99
122) 1,2,3-trichlorobenzene	20.309	180	243541	67.71	ug/L	94
123) hexachloroethane	18.259	201	87167	60.10	ug/L	96
124) 2-methylnaphthalene	21.371	142	221303	34.66	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.4.2
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\

Data File : a258170.d

Acq On : 20 May 2020 1:18 pm

Operator : edwardd

Sample : JD7282-9msd

Misc : MS43215,VA10060,5,,,,1

Inst : MSA

ALS Vial : 10 Sample Multiplier:

Quant Method : C:\MSDCHEM\1\METH

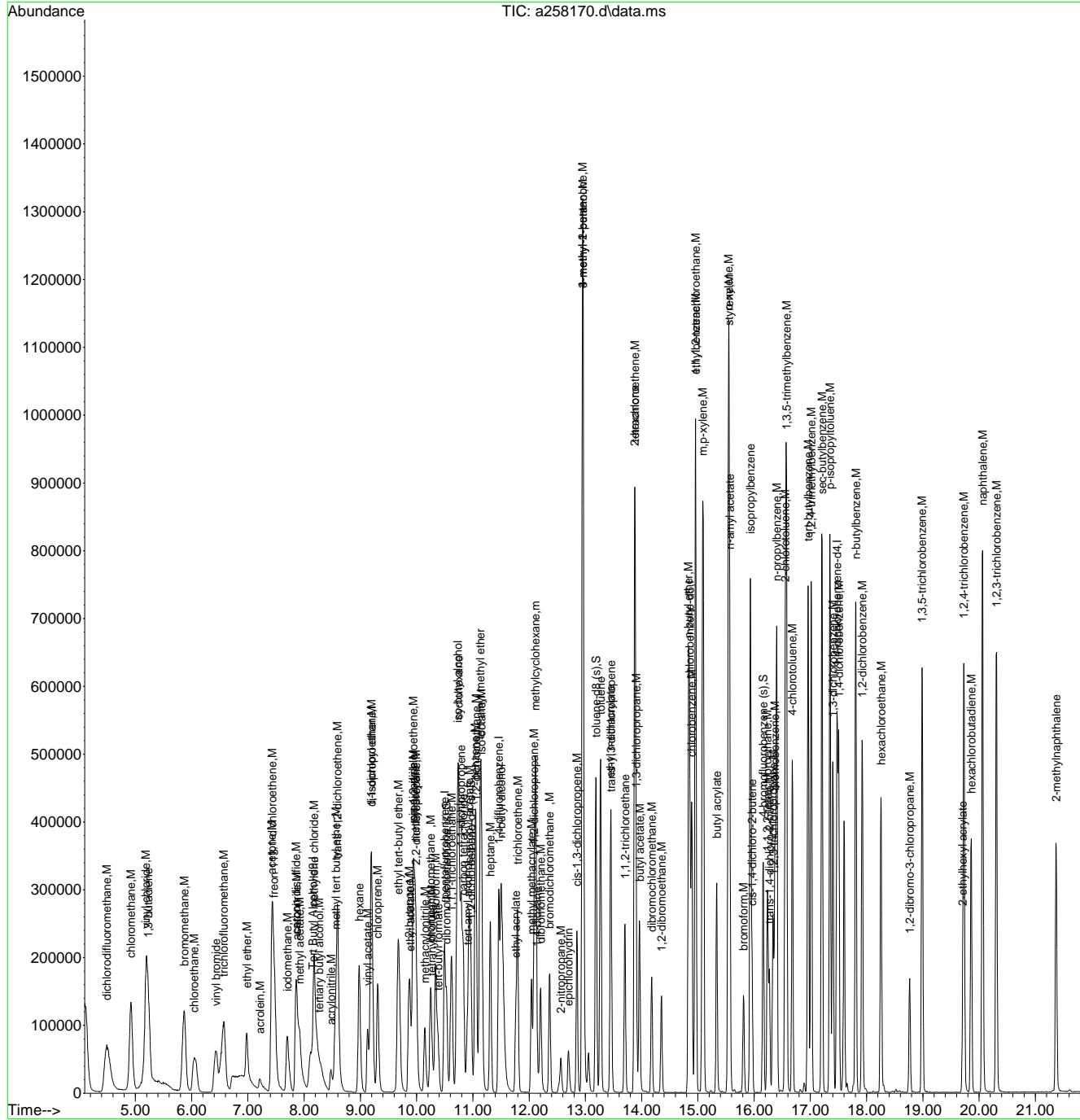
Quant Results File: MA9958.RES

Quant Time: May 20 22:53:46 2020

Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4u

QLast Update : Wed Feb 05 10:36:55

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67675.d
 Acq On : 21 May 2020 2:03 pm
 Operator : ROBERTS
 Sample : JD7301-1MS Inst : MS2V
 Misc : MS43225,V2V2800,5,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 14:19:06 2020
 Quant Title : SW 846 Method 8260C, Rx-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	93102	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	204905	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.698	114	320117	50.00	ug/L	0.00
74) chlorobenzene-d5	7.089	117	248235	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.291	152	125861	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	93094	51.02	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 102.04%		
53) 1,2-dichloroethane-d4 (s)	4.388	65	89345	46.20	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 92.40%		
75) toluene-d8 (s)	5.841	98	346338	54.73	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 109.46%		
99) 4-bromofluorobenzene (s)	8.174	95	114338	49.29	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 98.58%		
Target Compounds						
				Qvalue		
2) ethanol	2.375	45	147304	5099.14	ug/L	98
3) tertiary butyl alcohol	2.989	59	84448	235.39	ug/L	94
4) 1,4-dioxane	5.128	88	41950	1340.67	ug/L	99
7) dichlorodifluoromethane	1.568	85	71732	30.95	ug/L	99
8) chloromethane	1.715	50	80053	39.85	ug/L	99
9) vinyl chloride	1.798	62	89486	40.06	ug/L	99
10) bromomethane	2.040	96	43454	38.15	ug/L	99
11) chloroethane	2.113	64	54343	46.64	ug/L	97
12) trichlorofluoromethane	2.291	101	160880	48.35	ug/L	98
13) vinyl bromide	2.249	106	69144	46.36	ug/L	95
14) 1,3-butadiene	1.825	54	70621	46.42	ug/L	97
15) ethyl ether	2.470	74	56256	58.92	ug/L	95
17) acrolein	2.564	56	14582	55.76	ug/L	96
18) freon 113	2.637	151	79176	49.05	ug/L	95
19) 1,1-dichloroethene	2.643	61	136096	53.22	ug/L	98
20) acetone	2.648	58	37098	220.44	ug/L	92
21) acetonitrile	2.831	41	133719	547.91	ug/L	97
22) iodomethane	2.753	142	79237	83.11	ug/L	97
23) carbon disulfide	2.810	76	220504	54.68	ug/L	94
24) methylene chloride	2.962	84	107925	58.34	ug/L	92
25) methyl acetate	2.852	43	78675	51.65	ug/L	94
26) methyl tert butyl ether	3.125	73	303998	57.48	ug/L	97
27) trans-1,2-dichloroethene	3.141	96	104888	60.71	ug/L	99
28) hexane	3.319	56	54496	50.41	ug/L	96
29) di-isopropyl ether	3.429	45	301213	58.49	ug/L	93
30) ethyl tert-butyl ether	3.670	59	308164	57.85	ug/L	98
31) 1,1-dichloroethane	3.429	63	173875	58.21	ug/L	100
32) chloroprene	3.481	53	133303	54.04	ug/L	98
33) acrylonitrile	3.099	53	39886	58.13	ug/L	99
34) vinyl acetate	3.403	86	23334	62.10	ug/L	# 86
35) ethyl acetate	3.796	45	17985	56.54	ug/L	# 79
36) 2-butanone	3.786	72	52751	215.17	ug/L	95
37) 2,2-dichloropropane	3.822	77	155656	54.96	ug/L	99
38) cis-1,2-dichloroethene	3.812	96	117161	57.05	ug/L	99
39) propionitrile	3.828	54	149984	601.55	ug/L	94
40) methyl acrylate	3.838	85	17438	53.22	ug/L	# 78
41) bromochloromethane	3.974	128	61292	59.26	ug/L	98
42) tetrahydrofuran	3.990	71	13813	52.04	ug/L	97
43) chloroform	4.032	83	195787	55.75	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67675.d
 Acq On : 21 May 2020 2:03 pm
 Operator : ROBERTS
 Sample : JD7301-1MS Inst : MS2V
 Misc : MS43225,V2V2800,5,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 14:19:06 2020
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
45) methacrylonitrile	3.938	67	40841	54.72	ug/L	98
46) 1,1,1-trichloroethane	4.168	97	156629	49.54	ug/L	98
47) cyclohexane	4.231	84	106459	45.58	ug/L	# 88
48) 1,1-dichloropropene	4.278	75	131575	52.69	ug/L	98
49) carbon tetrachloride	4.284	119	149010	52.52	ug/L	99
50) isobutyl alcohol	4.278	42	33786	523.64	ug/L	95
51) tert-amyl alcohol	4.373	55	27404	276.89	ug/L	94
54) n-butyl alcohol	4.756	56	200640	2499.55	ug/L	98
55) benzene	4.425	78	382202	49.10	ug/L	99
56) tert-amyl methyl ether	4.488	73	307907	48.34	ug/L	99
57) iso-octane	4.493	57	200627	45.36	ug/L	96
58) heptane	4.603	57	42646	42.70	ug/L	100
59) isopropyl acetate	4.399	87	25295	46.75	ug/L	# 93
60) 1,2-dichloroethane	4.446	62	145838	46.47	ug/L	98
61) trichloroethene	4.892	95	113623	52.29	ug/L	98
62) ethyl acrylate	4.908	55	144649	50.25	ug/L	98
63) 2-nitropropane	5.432	41	27156	44.63	ug/L	95
64) 2-chloroethyl vinyl ether	5.469	63	60278	42.27	ug/L	97
65) methyl methacrylate	5.091	100	32776	51.13	ug/L	# 76
66) 1,2-dichloropropane	5.086	63	102982	52.53	ug/L	98
67) methylcyclohexane	5.081	83	132363	43.06	ug/L	96
68) dibromomethane	5.154	93	74353	48.75	ug/L	92
69) bromodichloromethane	5.275	83	155793	52.80	ug/L	99
70) epichlorohydrin	5.516	57	61265	245.32	ug/L	95
71) cis-1,3-dichloropropene	5.615	75	177325	54.75	ug/L	89
72) 4-methyl-2-pentanone	5.715	58	183757	212.62	ug/L	90
73) 3-methyl-1-butanol	5.736	70	79050	994.34	ug/L	95
76) toluene	5.899	92	265065	55.86	ug/L	96
77) ethyl methacrylate	6.092	69	143289	57.42	ug/L	96
78) trans-1,3-dichloropropene	6.066	75	160313	56.21	ug/L	92
79) 1,1,2-trichloroethane	6.234	83	85881	55.61	ug/L	96
80) 2-hexanone	6.402	58	180137	225.30	ug/L	95
81) tetrachloroethene	6.334	164	91239	50.18	ug/L	93
82) 1,3-dichloropropane	6.381	76	154068	54.53	ug/L	99
83) butyl acetate	6.491	56	71980	55.36	ug/L	97
84) dibromochloromethane	6.575	129	130438	55.97	ug/L	100
85) 1,2-dibromoethane	6.685	107	134625	59.68	ug/L	100
86) n-butyl ether	7.173	57	365580	51.86	ug/L	100
87) chlorobenzene	7.115	112	286053	51.02	ug/L	97
88) 1,1,1,2-tetrachloroethane	7.188	131	112708	54.87	ug/L	99
89) ethylbenzene	7.194	91	549409	61.67	ug/L	99
90) m,p-xylene	7.309	106	573643	168.63	ug/L	97
91) o-xylene	7.665	91	474963	68.68	ug/L	100
92) styrene	7.681	104	271078	49.33	ug/L	99
93) butyl acrylate	7.587	56	82027	49.88	ug/L	98
94) n-amyl acetate	7.796	70	66729	49.85	ug/L	99
95) bromoform	7.854	173	85665	50.50	ug/L	99
96) isopropylbenzene	8.006	105	426237	51.16	ug/L	99
97) cis-1,4-dichloro-2-butene	8.053	88	49211	49.35	ug/L	98
100) bromobenzene	8.316	156	129771	47.76	ug/L	99
101) 1,1,2,2-tetrachloroethane	8.284	83	131016	47.07	ug/L	98
102) trans-1,4-dichloro-2-b...	8.321	53	34091	47.35	ug/L	97
103) 1,2,3-trichloropropane	8.347	110	41088	48.82	ug/L	99
104) n-propylbenzene	8.399	91	557587	55.22	ug/L	99
105) 2-chlorotoluene	8.494	126	107615	46.21	ug/L	84
106) 4-chlorotoluene	8.609	126	111721	49.73	ug/L	99
107) 1,3,5-trimethylbenzene	8.572	105	506737	70.54	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67675.d
 Acq On : 21 May 2020 2:03 pm
 Operator : ROBERTS
 Sample : JD7301-1MS Inst : MS2V
 Misc : MS43225,V2V2800,5,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 14:19:06 2020
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

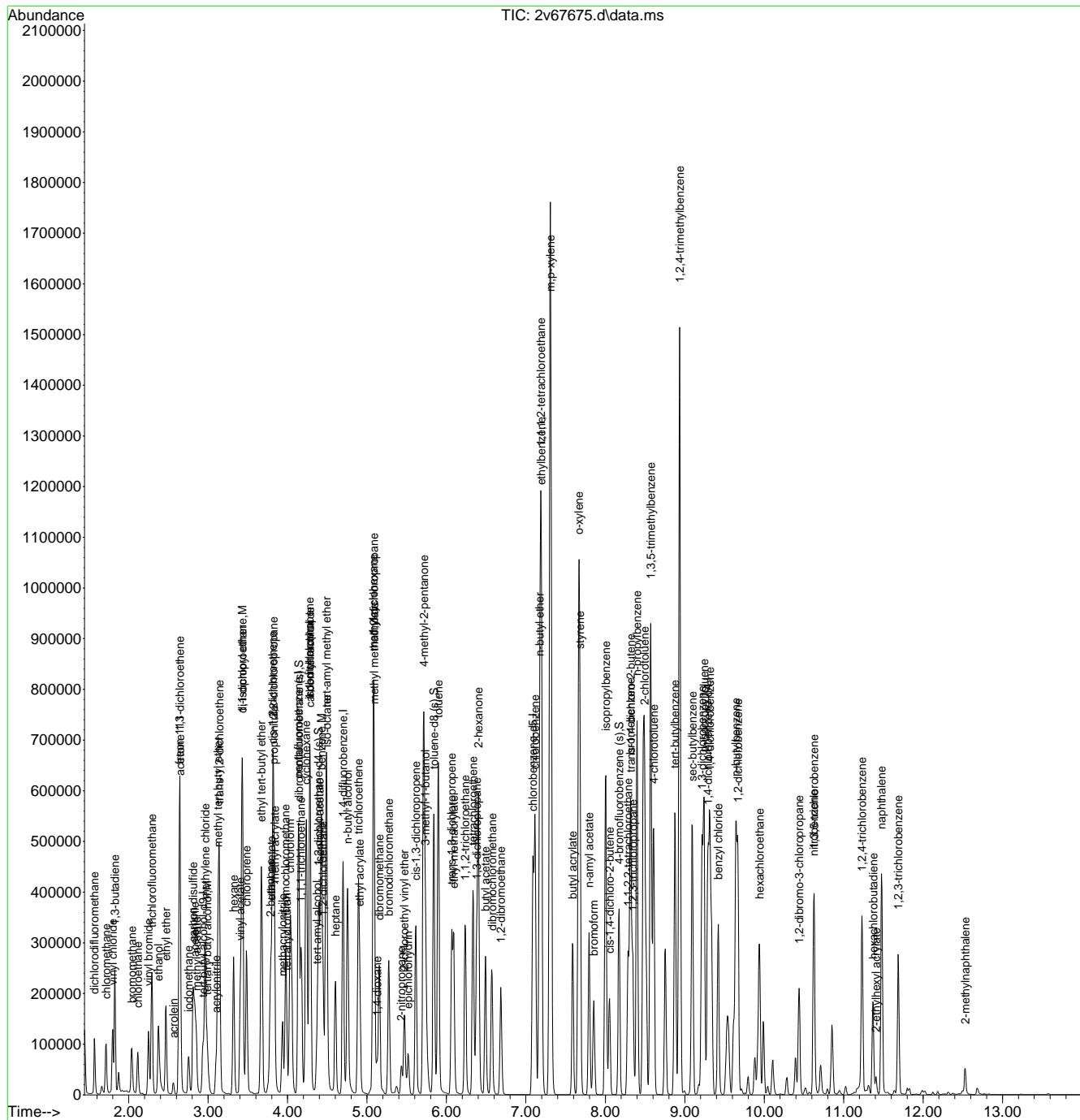
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
108) tert-butylbenzene	8.877	134	67581	47.79	ug/L	97
109) 1,2,4-trimethylbenzene	8.934	105	862765	120.20	ug/L	98
110) sec-butylbenzene	9.097	105	394704	47.47	ug/L	98
111) 1,3-dichlorobenzene	9.217	146	219158	49.56	ug/L	99
112) p-isopropyltoluene	9.244	119	344797	49.69	ug/L	99
113) 1,4-dichlorobenzene	9.317	146	222740	48.20	ug/L	98
114) 1,2-dichlorobenzene	9.668	146	208621	49.63	ug/L	98
115) benzyl chloride	9.422	91	248811	56.13	ug/L	97
116) n-butylbenzene	9.642	92	155086	51.03	ug/L	97
117) hexachloroethane	9.941	201	55229	43.86	ug/L	# 83
118) 1,2-dibromo-3-chloropr...	10.439	157	32461	49.15	ug/L	91
119) nitrobenzene	10.622	77	7584	69.00	ug/L	98
120) 1,3,5-trichlorobenzene	10.628	180	134723	48.36	ug/L	98
121) 1,2,4-trichlorobenzene	11.231	180	112100	47.08	ug/L	97
122) hexachlorobutadiene	11.372	225	39323	39.23	ug/L	98
123) naphthalene	11.477	128	349788	56.73	ug/L	99
124) 1,2,3-trichlorobenzene	11.687	180	86972	43.94	ug/L	97
125) 2-ethylhexyl acrylate	11.409	70	8856	7.67	ug/L	96
126) 2-methylnaphthalene	12.531	142	26235	24.45	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
Data File : 2v67675.d
Acq On : 21 May 2020 2:03 pm
Operator : ROBERTS
Sample : JD7301-1MS Inst : MS2V
Misc : MS43225,V2V2800,5,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
Quant Results File: M2V2712.RES
Quant Time: May 21 14:19:06 2020
Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um
QLast Update : Mon Mar 09 10:12:58 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67677.d
 Acq On : 21 May 2020 3:15 pm
 Operator : ROBERTS
 Sample : JD7301-1MSD Inst : MS2V
 Misc : MS43225,V2V2800,5,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 21:59:29 2020
 Quant Title : SW 846 Method 8260C, Rx-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	100705	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	227096	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.698	114	319665	50.00	ug/L	0.00
74) chlorobenzene-d5	7.089	117	254885	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.291	152	131084	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	102896	50.88	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 101.76%		
53) 1,2-dichloroethane-d4 (s)	4.389	65	85019	44.03	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 88.06%		
75) toluene-d8 (s)	5.841	98	354411	54.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 109.08%		
99) 4-bromofluorobenzene (s)	8.174	95	121666	50.36	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 100.72%		
Target Compounds						
				Qvalue		
2) ethanol	2.375	45	156457	5007.09	ug/L	98
3) tertiary butyl alcohol	2.989	59	91414	235.57	ug/L	89
4) 1,4-dioxane	5.128	88	43716	1291.63	ug/L	99
7) dichlorodifluoromethane	1.568	85	75973	29.57	ug/L	98
8) chloromethane	1.715	50	77637	34.87	ug/L	99
9) vinyl chloride	1.799	62	93815	37.90	ug/L	98
10) bromomethane	2.040	96	51805	41.03	ug/L	98
11) chloroethane	2.113	64	55126	42.69	ug/L	97
12) trichlorofluoromethane	2.291	101	177912	48.24	ug/L	99
13) vinyl bromide	2.249	106	70702	42.78	ug/L	94
14) 1,3-butadiene	1.825	54	82217	48.76	ug/L	99
15) ethyl ether	2.470	74	57262	54.11	ug/L	93
17) acrolein	2.564	56	14660	50.58	ug/L	97
18) freon 113	2.637	151	100167	56.00	ug/L	97
19) 1,1-dichloroethene	2.643	61	154864	54.64	ug/L	96
20) acetone	2.648	58	38970	208.94	ug/L	87
21) acetonitrile	2.831	41	138950	513.71	ug/L	96
22) iodomethane	2.753	142	101303	95.87	ug/L	98
23) carbon disulfide	2.810	76	243423	54.46	ug/L	93
24) methylene chloride	2.963	84	110887	54.09	ug/L	92
25) methyl acetate	2.852	43	82347	48.78	ug/L	96
26) methyl tert butyl ether	3.125	73	309227	52.76	ug/L	98
27) trans-1,2-dichloroethene	3.141	96	113907	59.49	ug/L	98
28) hexane	3.319	56	71614	59.78	ug/L	98
29) di-isopropyl ether	3.429	45	307373	53.86	ug/L	92
30) ethyl tert-butyl ether	3.670	59	319709	54.15	ug/L	98
31) 1,1-dichloroethane	3.429	63	180521	54.53	ug/L	99
32) chloroprene	3.482	53	148378	54.28	ug/L	99
33) acrylonitrile	3.099	53	41153	54.12	ug/L	97
34) vinyl acetate	3.408	86	23501	56.43	ug/L #	89
35) ethyl acetate	3.796	45	18210	51.65	ug/L #	66
36) 2-butanone	3.786	72	53073	195.33	ug/L #	91
37) 2,2-dichloropropane	3.822	77	175227	55.83	ug/L	99
38) cis-1,2-dichloroethene	3.812	96	121645	53.44	ug/L	98
39) propionitrile	3.828	54	158407	573.25	ug/L	94
40) methyl acrylate	3.838	85	18401	50.67	ug/L #	88
41) bromochloromethane	3.974	128	62670	54.67	ug/L	94
42) tetrahydrofuran	3.985	71	14327	48.70	ug/L	96
43) chloroform	4.027	83	194463	49.96	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67677.d
 Acq On : 21 May 2020 3:15 pm
 Operator : ROBERTS
 Sample : JD7301-1MSD Inst : MS2V
 Misc : MS43225,V2V2800,5,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 21:59:29 2020
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
45) methacrylonitrile	3.938	67	44995	54.39	ug/L	99
46) 1,1,1-trichloroethane	4.174	97	194165	55.41	ug/L	97
47) cyclohexane	4.231	84	134921	52.13	ug/L	# 85
48) 1,1-dichloropropene	4.279	75	151830	54.86	ug/L	96
49) carbon tetrachloride	4.284	119	172276	54.79	ug/L	99
50) isobutyl alcohol	4.279	42	36838	515.15	ug/L	94
51) tert-amyl alcohol	4.373	55	25100	228.83	ug/L	90
54) n-butyl alcohol	4.756	56	207566	2589.49	ug/L	97
55) benzene	4.425	78	366803	47.19	ug/L	99
56) tert-amyl methyl ether	4.488	73	318281	50.04	ug/L	98
57) iso-octane	4.488	57	267928	60.67	ug/L	97
58) heptane	4.604	57	56198	56.35	ug/L	99
59) isopropyl acetate	4.399	87	23678	43.82	ug/L	# 85
60) 1,2-dichloroethane	4.446	62	144534	46.12	ug/L	99
61) trichloroethene	4.892	95	122811	56.60	ug/L	99
62) ethyl acrylate	4.908	55	145025	50.46	ug/L	98
63) 2-nitropropane	5.432	41	27076	44.56	ug/L	94
64) 2-chloroethyl vinyl ether	5.469	63	43300	30.41	ug/L	98
65) methyl methacrylate	5.091	100	35011	54.69	ug/L	# 68
66) 1,2-dichloropropane	5.086	63	107018	54.67	ug/L	97
67) methylcyclohexane	5.081	83	175312	57.12	ug/L	96
68) dibromomethane	5.154	93	76805	50.43	ug/L	95
69) bromodichloromethane	5.275	83	161080	54.67	ug/L	99
70) epichlorohydrin	5.516	57	63834	255.97	ug/L	97
71) cis-1,3-dichloropropene	5.615	75	182192	56.33	ug/L	91
72) 4-methyl-2-pentanone	5.710	58	190547	220.79	ug/L	93
73) 3-methyl-1-butanol	5.736	70	83988	1057.95	ug/L	96
76) toluene	5.899	92	280589	57.59	ug/L	97
77) ethyl methacrylate	6.093	69	148925	58.13	ug/L	95
78) trans-1,3-dichloropropene	6.066	75	166674	56.92	ug/L	93
79) 1,1,2-trichloroethane	6.234	83	88799	56.00	ug/L	98
80) 2-hexanone	6.402	58	190365	231.88	ug/L	93
81) tetrachloroethene	6.334	164	112096	60.04	ug/L	96
82) 1,3-dichloropropane	6.381	76	161983	55.84	ug/L	98
83) butyl acetate	6.491	56	78098	58.50	ug/L	94
84) dibromochloromethane	6.570	129	136656	57.11	ug/L	98
85) 1,2-dibromoethane	6.685	107	137377	59.31	ug/L	99
86) n-butyl ether	7.173	57	389101	53.76	ug/L	99
87) chlorobenzene	7.115	112	277421	48.18	ug/L	98
88) 1,1,1,2-tetrachloroethane	7.188	131	117979	55.93	ug/L	97
89) ethylbenzene	7.194	91	606820	66.34	ug/L	99
90) m,p-xylene	7.309	106	644500	184.51	ug/L	100
91) o-xylene	7.666	91	590841	83.21	ug/L	99
92) styrene	7.681	104	335366	59.44	ug/L	99
93) butyl acrylate	7.592	56	97708	57.87	ug/L	94
94) n-amyl acetate	7.797	70	77124	56.11	ug/L	95
95) bromoform	7.854	173	95914	55.07	ug/L	97
96) isopropylbenzene	8.006	105	521336	60.94	ug/L	99
97) cis-1,4-dichloro-2-butene	8.053	88	50506	49.33	ug/L	98
100) bromobenzene	8.316	156	140397	49.61	ug/L	99
101) 1,1,2,2-tetrachloroethane	8.289	83	143363	49.46	ug/L	99
102) trans-1,4-dichloro-2-b...	8.321	53	34223	45.64	ug/L	95
103) 1,2,3-trichloropropane	8.347	110	42656	48.66	ug/L	98
104) n-propylbenzene	8.400	91	642630	61.11	ug/L	99
105) 2-chlorotoluene	8.494	126	120328	49.61	ug/L	91
106) 4-chlorotoluene	8.609	126	119783	51.19	ug/L	93
107) 1,3,5-trimethylbenzene	8.573	105	571699	76.41	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67677.d
 Acq On : 21 May 2020 3:15 pm
 Operator : ROBERTS
 Sample : JD7301-1MSD Inst : MS2V
 Misc : MS43225,V2V2800,5,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 21:59:29 2020
 Quant Title : SW 846 Method 8260C, RxI-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

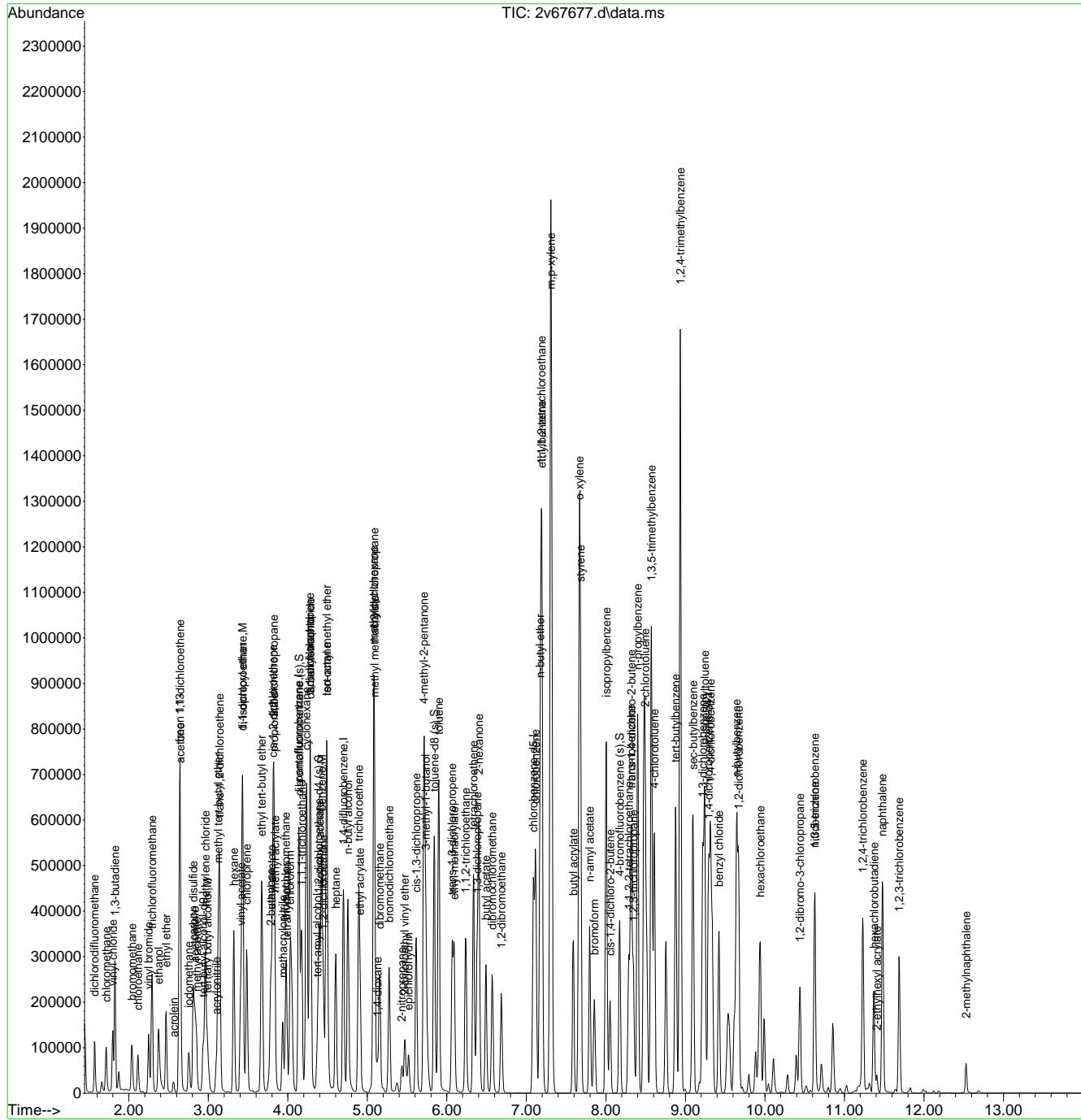
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
108) tert-butylbenzene	8.877	134	75418	51.20	ug/L	92
109) 1,2,4-trimethylbenzene	8.934	105	965429	129.15	ug/L	98
110) sec-butylbenzene	9.097	105	457850	52.87	ug/L	99
111) 1,3-dichlorobenzene	9.217	146	233745	50.75	ug/L	98
112) p-isopropyltoluene	9.244	119	387876	53.67	ug/L	99
113) 1,4-dichlorobenzene	9.317	146	237120	49.26	ug/L	99
114) 1,2-dichlorobenzene	9.668	146	219308	50.09	ug/L	99
115) benzyl chloride	9.422	91	261290	56.59	ug/L	98
116) n-butylbenzene	9.642	92	179655	56.76	ug/L	96
117) hexachloroethane	9.941	201	61526	46.91	ug/L	#
118) 1,2-dibromo-3-chloropr...	10.439	157	35342	51.38	ug/L	90
119) nitrobenzene	10.628	77	8986	78.49	ug/L	88
120) 1,3,5-trichlorobenzene	10.628	180	146124	50.36	ug/L	96
121) 1,2,4-trichlorobenzene	11.231	180	122029	49.20	ug/L	97
122) hexachlorobutadiene	11.372	225	48679	46.62	ug/L	97
123) naphthalene	11.477	128	380524	59.25	ug/L	99
124) 1,2,3-trichlorobenzene	11.687	180	95122	46.14	ug/L	98
125) 2-ethylhexyl acrylate	11.409	70	10265	8.43	ug/L	96
126) 2-methylnaphthalene	12.531	142	31548	28.23	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
Data File : 2v67677.d
Acq On : 21 May 2020 3:15 pm
Operator : ROBERTS
Sample : JD7301-1MSD Inst : MS2V
Misc : MS43225,V2V2800,5,,,1
ALS Vial : 13 Sample Multiplier: 1

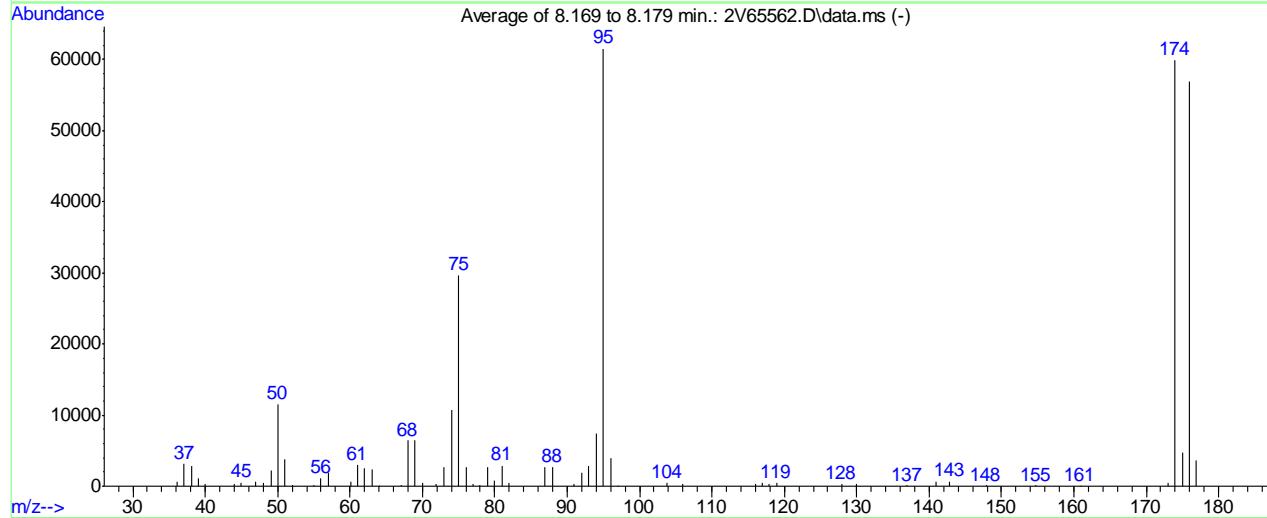
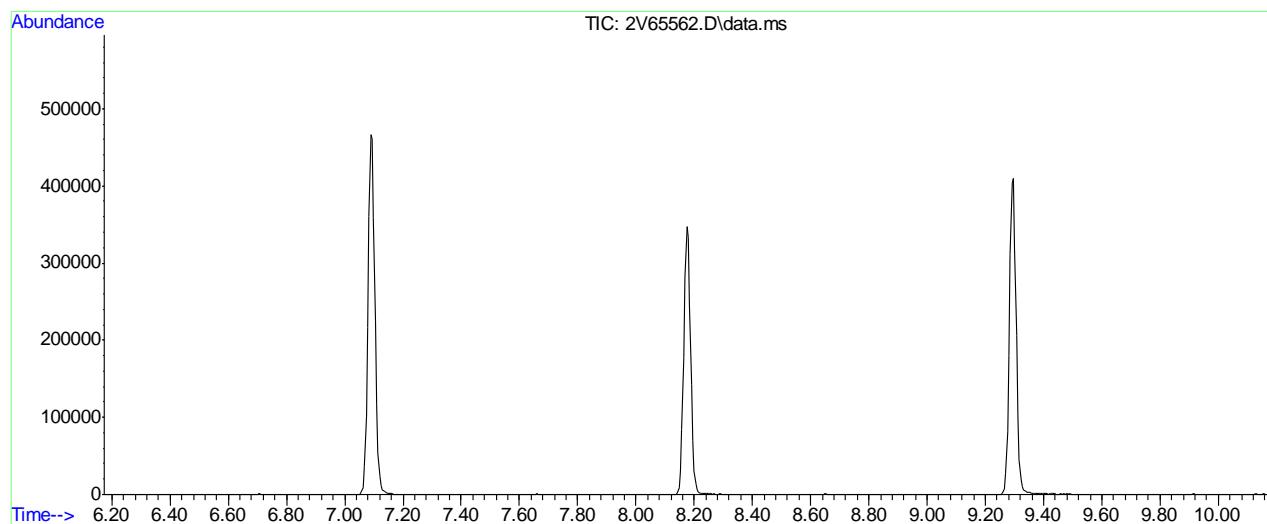
Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
Quant Results File: M2V2712.RES
Quant Time: May 21 21:59:29 2020
Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um
QLast Update : Mon Mar 09 10:12:58 2020
Response via : Initial Calibration



SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V2V2712\2V65562.D Vial: 1
 Acq On : 7 Mar 2020 2:46 pm Operator: PrashanS
 Sample : BFB Inst : MS2V
 Misc : MS41182,V2V2712,5,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V2712.M (RTE Integrator)
 Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)



AutoFind: Scans 1284, 1285, 1286; Background Corrected with Scan 1276

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.8	11565	PASS
75	95	30	60	48.2	29648	PASS
95	95	100	100	100.0	61563	PASS
96	95	5	9	6.5	3973	PASS
173	174	0.00	2	0.9	557	PASS
174	95	50	120	97.4	59976	PASS
175	174	5	9	7.9	4759	PASS
176	174	95	101	95.0	56989	PASS
177	176	5	9	6.3	3588	PASS

Average of 8.169 to 8.179 min.: 2V65562.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	563	51.00	3755	68.00	6422	79.95	848
37.05	3142	52.10	131	69.00	6420	80.95	2889
38.05	2805	55.00	239	70.05	475	81.95	544
39.05	1071	56.00	1105	71.95	347	86.95	2610
39.95	278	57.00	1844	73.00	2692	87.95	2734
44.00	286	60.05	589	74.05	10775	90.95	313
45.00	545	61.00	2959	75.00	29648	92.05	1824
47.00	647	62.05	2568	76.00	2608	93.00	2817
48.00	426	63.00	2366	77.00	325	94.00	7398
49.05	2238	64.00	59	78.00	185	95.00	61563
50.05	11565	67.05	209	78.95	2652	96.00	3973

Average of 8.169 to 8.179 min.: 2V65562.D\data.ms

BFB

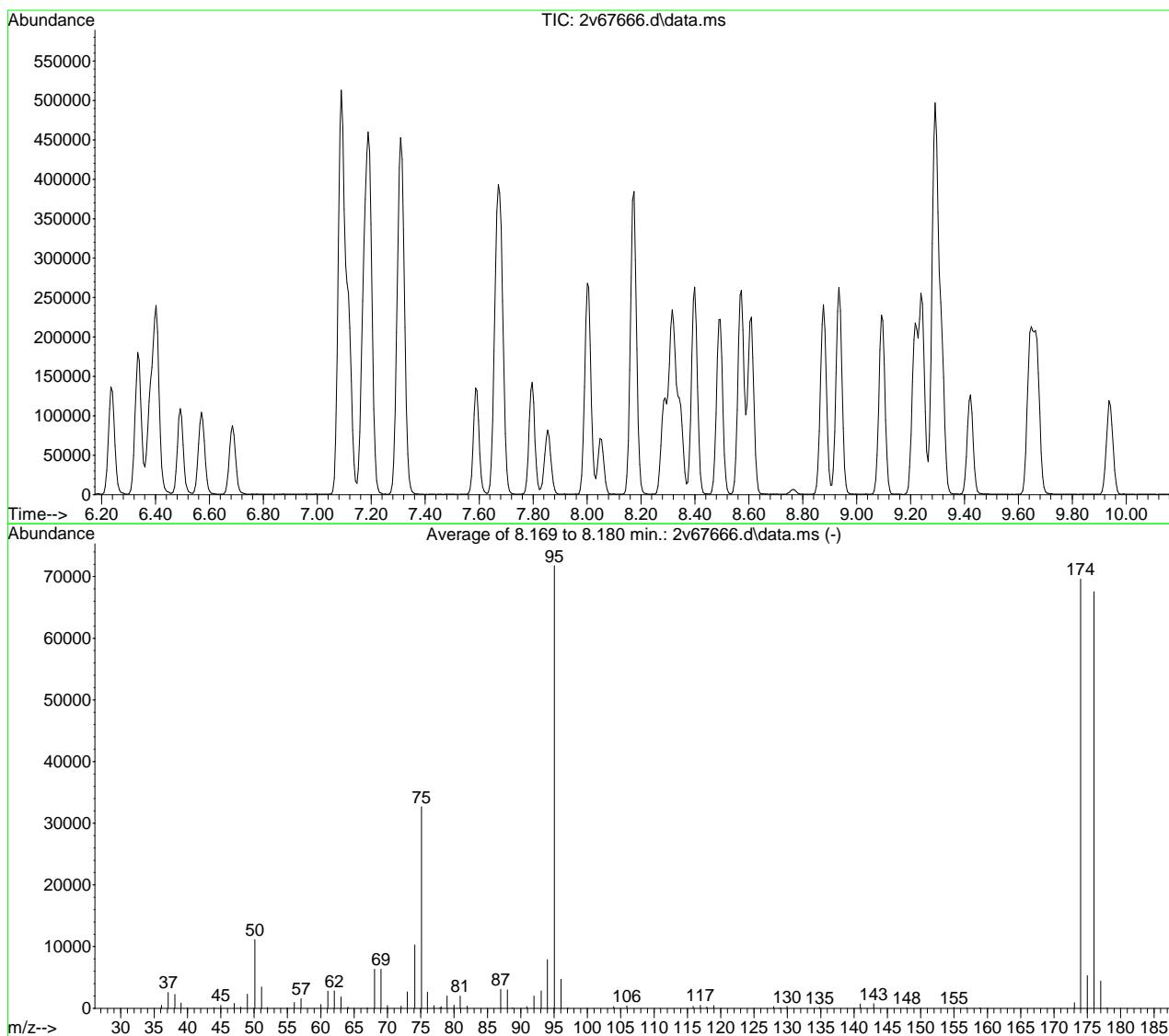
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.00	74	142.85	711				
103.85	421	147.90	139				
105.90	286	154.80	139				
115.95	257	160.90	69				
116.90	445	173.00	557				
117.95	330	174.00	59976				
118.90	464	175.00	4759				
127.90	275	176.00	56989				
129.95	261	176.95	3588				
137.00	88						
140.95	681						

SW-846 Method 8260

Data File : C:\msdchem\1\data\da...-20\v2v2800\2v67666.d Vial: 2
 Acq On : 21 May 2020 8:30 am Operator: ROBERTS
 Sample : BFB Inst : MS2V
 Misc : MS43230,V2V2800,5,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2V2712.M (RTE Integrator)
 Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)



AutoFind: Scans 1284, 1285, 1286; Background Corrected with Scan 1275

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.6	11164	PASS
75	95	30	60	45.5	32685	PASS
95	95	100	100	100.0	71757	PASS
96	95	5	9	6.5	4688	PASS
173	174	0.00	2	1.3	890	PASS
174	95	50	120	97.0	69600	PASS
175	174	5	9	7.6	5298	PASS
176	174	95	101	97.1	67571	PASS
177	176	5	9	6.5	4419	PASS

Average of 8.169 to 8.180 min.: 2v67666.d\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	502	51.10	3436	68.05	6333	78.95	1984
37.10	2559	52.00	101	69.05	6351	80.00	545
38.10	2247	55.00		61	70.00	425	80.90
39.05	879	56.05	924	72.05	346	81.95	352
40.00	59	57.05	1588	73.00	2647	87.00	3062
44.00	126	60.00	603	74.10	10273	88.00	3003
45.00	476	61.05	2778	75.10	32685	88.70	70
47.00	800	62.05	2808	76.00	2611	90.90	294
48.00	188	63.05	1877	76.95	422	92.00	1975
49.00	2275	64.10	203	77.90	106	93.05	2815
50.10	11164	67.00		60	78.05	259	94.00
							7865

Average of 8.169 to 8.180 min.: 2v67666.d\data.ms

BFB

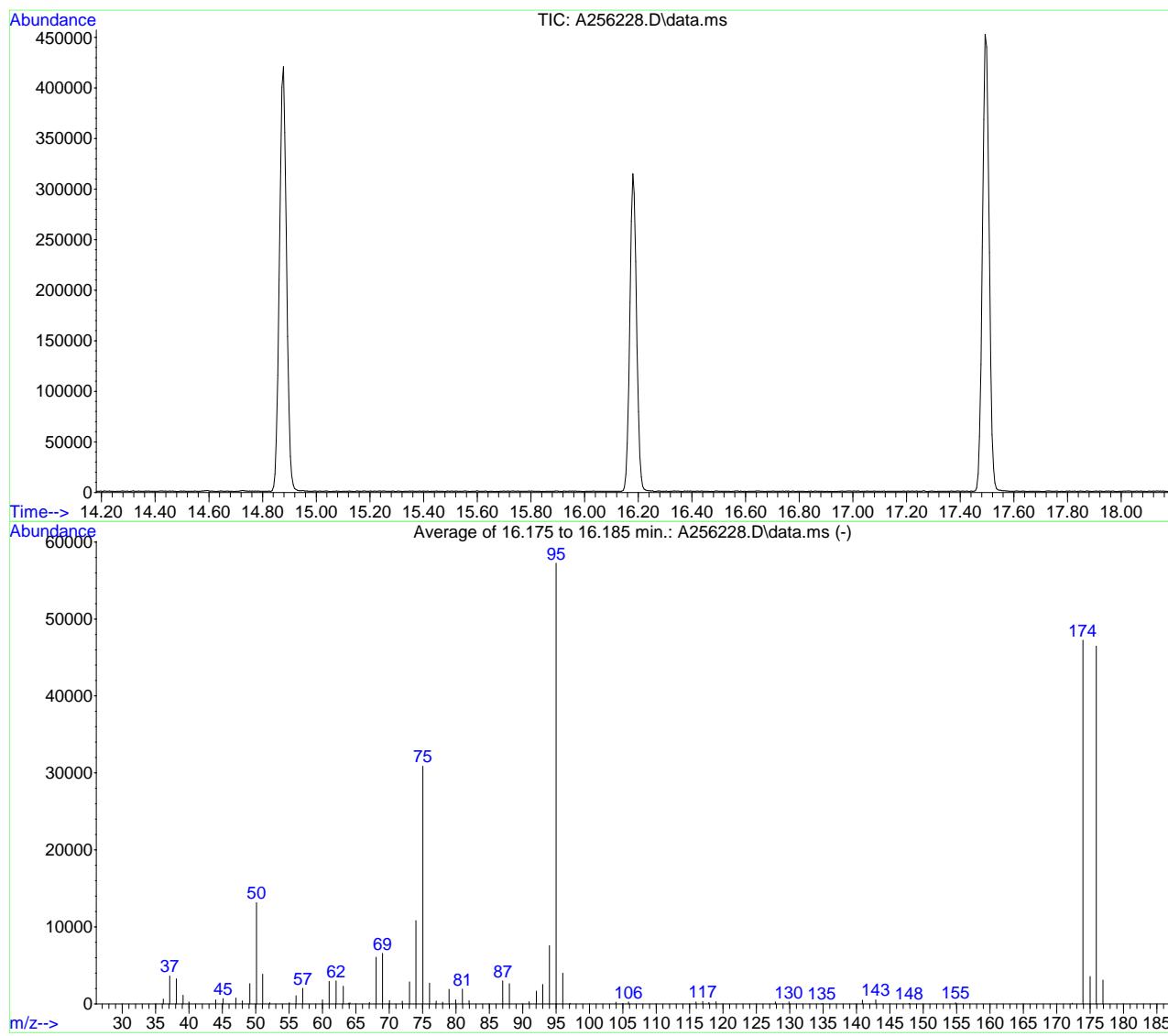
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.05	71757	129.95	316	176.00	67571		
96.05	4688	134.85	136	177.00	4419		
97.10	65	140.95	673	177.90	62		
103.95	275	142.95	722				
105.90	394	147.90	86				
115.85	322	155.00	164				
116.95	468	156.90	68				
117.90	232	158.90	62				
118.95	441	173.05	890				
127.95	257	174.00	69600				
128.90	77	175.00	5298				

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\VA9958\A256228.D Vial: 1
 Acq On : 4 Feb 2020 3:40 pm Operator: BridgetK
 Sample : bfb Inst : MSA
 Misc : MS40670,VA9958,5,,,,1 Multiplr: 1.00
 MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\MA9958.M (RTE Integrator)
 Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um



AutoFind: Scans 2311, 2312, 2313; Background Corrected with Scan 2302

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.0	13156	PASS
75	95	30	60	53.9	30864	PASS
95	95	100	100	100.0	57248	PASS
96	95	5	9	7.0	3983	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	82.5	47242	PASS
175	174	5	9	7.5	3543	PASS
176	174	95	101	98.4	46496	PASS
177	176	5	9	6.6	3075	PASS

Average of 16.175 to 16.185 min.: A256228.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.15	614	51.05	3862	67.05	172	78.95	1870
37.10	3610	52.10	138	68.05	6048	79.95	534
38.10	3266	55.05	142	69.00	6571	80.95	1906
39.10	1126	56.05	1037	70.05	431	81.95	432
40.00	250	57.05	2020	71.95	363	87.00	2986
44.00	521	60.00	517	73.05	2864	88.00	2627
45.10	681	61.00	2924	74.00	10835	90.95	277
47.05	758	62.05	2972	75.05	30864	92.05	1650
48.00	398	63.10	2290	76.05	2699	93.00	2515
49.10	2620	63.90	92	77.05	362	94.00	7565
50.10	13156	64.10	164	78.00	224	95.00	57248

Average of 16.175 to 16.185 min.: A256228.D\data.ms

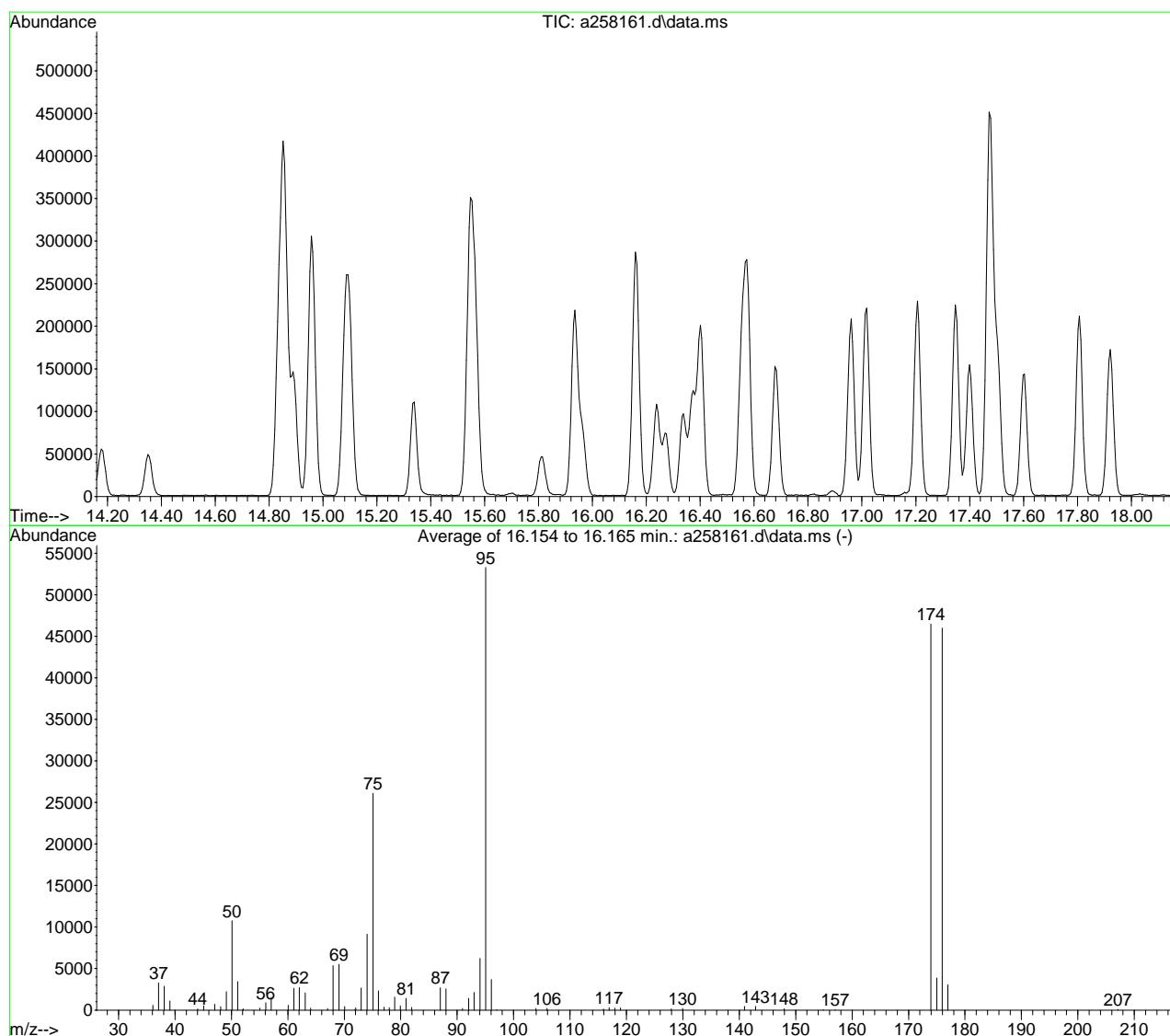
bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	3983	134.80	51				
97.10	54	140.90	478				
103.95	222	142.90	505				
105.00	53	147.90	55				
105.85	246	154.85	145				
115.95	257	172.30	90				
116.95	315	173.90	47242				
117.90	191	175.00	3543				
118.95	299	175.90	46496				
127.85	238	176.90	3075				
129.90	260						

SW-846 Method 8260
 Data File : C:\msdchem\1\data\ja...020\va10060\A258161.d Vial: 1
 Acq On : 20 May 2020 8:15 am Operator: payalr
 Sample : bfb Inst : MSA
 Misc : MS43183,VA10060,5,,,,1 Multiplr: 1.00
 MS Integration Params: LSCINT.P

Method : C:\MSDCHEM\1\METHODS\MA9958.M (RTE Integrator)
 Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um



AutoFind: Scans 2307, 2308, 2309; Background Corrected with Scan 2298

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	10749	PASS
75	95	30	60	49.0	26085	PASS
95	95	100	100	100.0	53277	PASS
96	95	5	9	6.9	3676	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	87.3	46488	PASS
175	174	5	9	8.3	3862	PASS
176	174	95	101	98.9	45995	PASS
177	176	5	9	6.6	3051	PASS

Average of 16.154 to 16.165 min.: a258161.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	563	52.05	185	69.05	5500	79.95	499
37.10	3266	55.05	222	70.05	421	80.95	1423
38.10	2861	56.10	889	71.90	84	81.95	324
39.10	1114	57.05	1524	72.05	274	87.00	2680
44.05	152	60.05	578	73.00	2640	88.00	2552
45.10	521	61.05	2617	74.05	9149	90.95	212
47.05	705	62.05	2712	75.10	26085	92.05	1422
48.10	435	63.10	2056	76.05	2325	93.00	2134
49.10	2227	64.05	224	77.05	372	94.05	6226
50.10	10749	67.05	201	77.95	285	95.05	53277
51.10	3431	68.00	5361	78.95	1558	96.05	3676

Average of 16.154 to 16.165 min.: a258161.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.00	55	147.95	171				
103.95	213	154.90	57				
105.95	217	157.00	58				
115.95	136	173.95	46488				
116.95	302	175.00	3862				
117.95	234	175.95	45995				
118.95	274	176.95	3051				
127.95	153	207.10	71				
129.95	206						
140.90	452						
142.90	455						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65563.D
 Acq On : 7 Mar 2020 3:18 pm
 Operator : PrashanS
 Sample : IC2712-0.2
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 09 10:09:37 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:17:57 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	100545	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	237350	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.698	114	325161	50.00	ug/L	0.00
74) chlorobenzene-d5	7.089	117	263660	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.296	152	117280	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	104359	49.11	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	98.22%		
53) 1,2-dichloroethane-d4 (s)	4.394	65	98147	49.45	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	98.90%		
75) toluene-d8 (s)	5.841	98	342198	51.51	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	103.02%		
99) 4-bromofluorobenzene (s)	8.174	95	109071	51.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	102.20%		
Target Compounds						
				Qvalue		
9) vinyl chloride	1.799	62	448	0.17	ug/L	69
12) trichlorofluoromethane	2.291	101	753	0.20	ug/L	80
13) vinyl bromide	2.249	106	248	0.14	ug/L	# 75
19) 1,1-dichloroethene	2.648	61	448	0.15	ug/L	# 76
26) methyl tert butyl ether	3.130	73	1182	0.19	ug/L	72
27) trans-1,2-dichloroethene	3.146	96	312	0.15	ug/L	80
29) di-isopropyl ether	3.429	45	1158	0.20	ug/L	91
30) ethyl tert-butyl ether	3.676	59	1185	0.19	ug/L	94
31) 1,1-dichloroethane	3.434	63	568	0.16	ug/L	# 49
32) chloropropene	3.487	53	581	0.20	ug/L	# 73
37) 2,2-dichloroproppane	3.822	77	744	0.23	ug/L	# 47
38) cis-1,2-dichloroethene	3.812	96	457	0.19	ug/L	91
46) 1,1,1-trichloroethane	4.168	97	673	0.18	ug/L	# 1
54) n-butyl alcohol	4.761	56	677	7.78	ug/L	90
55) benzene	4.425	78	1625	0.21	ug/L	87
56) tert-amyl methyl ether	4.483	73	1368	0.22	ug/L	# 71
61) trichloroethene	4.892	95	337	0.15	ug/L	# 58
64) 2-chloroethyl vinyl ether	5.474	63	1273	0.84	ug/L	91
69) bromodichloromethane	5.275	83	516	0.17	ug/L	91
71) cis-1,3-dichloropropene	5.616	75	557	0.16	ug/L	# 68
72) 4-methyl-2-pentanone	5.715	58	471	0.51	ug/L	# 72
76) toluene	5.904	92	1018	0.21	ug/L	# 74
78) trans-1,3-dichloropropene	6.066	75	585	0.19	ug/L	# 37
79) 1,1,2-trichloroethane	6.245	83	269	0.16	ug/L	# 48
80) 2-hexanone	6.402	58	506	0.56	ug/L	# 74
81) tetrachloroethene	6.339	164	269	0.13	ug/L	# 73
82) 1,3-dichloropropane	6.381	76	470	0.16	ug/L	# 50
84) dibromochloromethane	6.575	129	406	0.16	ug/L	80
85) 1,2-dibromoethane	6.690	107	317	0.13	ug/L	# 67
87) chlorobenzene	7.115	112	1092	0.19	ug/L	# 66
88) 1,1,1,2-tetrachloroethane	7.188	131	296	0.13	ug/L	# 75
89) ethylbenzene	7.194	91	1973	0.21	ug/L	84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65563.D
 Acq On : 7 Mar 2020 3:18 pm
 Operator : PrashanS
 Sample : IC2712-0.2
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 09 10:09:37 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:17:57 2020
 Response via : Initial Calibration

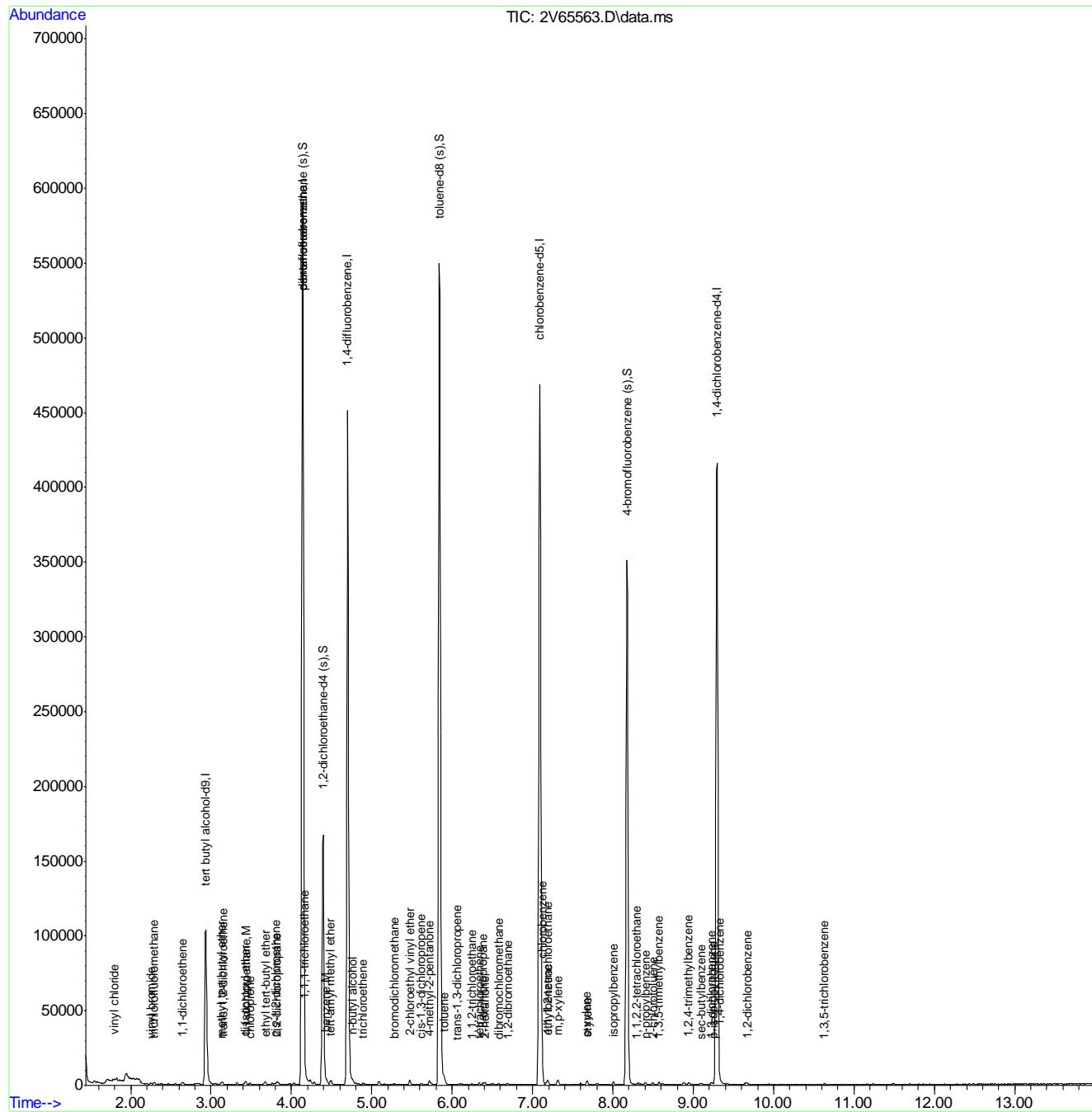
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) m,p-xylene	7.319	106	1268	0.35	ug/L	98
91) o-xylene	7.671	91	1273	0.17	ug/L	99
92) styrene	7.687	104	1080	0.18	ug/L	85
96) isopropylbenzene	8.006	105	1650	0.18	ug/L	98
101) 1,1,2,2-tetrachloroethane	8.289	83	477	0.19	ug/L	# 26
104) n-propylbenzene	8.405	91	1757	0.19	ug/L	93
105) 2-chlorotoluene	8.499	126	378	0.18	ug/L	# 59
107) 1,3,5-trimethylbenzene	8.573	105	1266	0.19	ug/L	78
109) 1,2,4-trimethylbenzene	8.940	105	1311	0.20	ug/L	81
110) sec-butylbenzene	9.097	105	1328	0.17	ug/L	60
111) 1,3-dichlorobenzene	9.223	146	732	0.18	ug/L	89
112) p-isopropyltoluene	9.249	119	1026	0.15	ug/L	61
113) 1,4-dichlorobenzene	9.328	146	861	0.21	ug/L	# 74
114) 1,2-dichlorobenzene	9.674	146	688	0.18	ug/L	88
120) 1,3,5-trichlorobenzene	10.628	180	387	0.15	ug/L	# 65

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65563.D
 Acq On : 7 Mar 2020 3:18 pm
 Operator : PrashanS
 Sample : IC2712-0.2
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 09 10:09:37 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:17:57 2020
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65564.D
 Acq On : 7 Mar 2020 3:43 pm
 Operator : PrashanS
 Sample : IC2712-0.5
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 09 10:09:45 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:17:57 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	97840	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	235649	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.698	114	323412	50.00	ug/L	0.00
74) chlorobenzene-d5	7.094	117	261204	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.296	152	117369	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	104682	49.62	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	99.24%		
53) 1,2-dichloroethane-d4 (s)	4.394	65	98405	49.85	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	99.70%		
75) toluene-d8 (s)	5.841	98	334200	50.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	101.56%		
99) 4-bromofluorobenzene (s)	8.174	95	107564	50.36	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	100.72%		
Target Compounds						
				Qvalue		
6) chlorodifluoromethane	1.578	51	1449	0.54	ug/L	84
7) dichlorodifluoromethane	1.568	85	1264	0.48	ug/L	87
8) chloromethane	1.715	50	1330	0.61	ug/L	82
9) vinyl chloride	1.799	62	1253	0.48	ug/L	67
10) bromomethane	2.034	96	655	0.51	ug/L	# 56
11) chloroethane	2.118	64	772	0.61	ug/L	# 72
12) trichlorofluoromethane	2.291	101	1948	0.52	ug/L	94
13) vinyl bromide	2.255	106	983	0.58	ug/L	79
14) 1,3-butadiene	1.830	54	992	0.57	ug/L	92
15) ethyl ether	2.475	74	516	0.48	ug/L	88
16) 2-chloropropane	2.564	43	1711	0.55	ug/L	87
18) freon 113	2.637	151	841	0.45	ug/L	# 79
19) 1,1-dichloroethene	2.643	61	1463	0.48	ug/L	90
23) carbon disulfide	2.810	76	2658	0.59	ug/L	86
24) methylene chloride	2.962	84	1138	0.56	ug/L	# 77
26) methyl tert butyl ether	3.125	73	2929	0.48	ug/L	98
27) trans-1,2-dichloroethene	3.151	96	947	0.47	ug/L	97
29) di-isopropyl ether	3.429	45	3021	0.52	ug/L	90
30) ethyl tert-butyl ether	3.676	59	2934	0.48	ug/L	89
31) 1,1-dichloroethane	3.434	63	1689	0.49	ug/L	84
32) chloroprene	3.487	53	1404	0.48	ug/L	96
37) 2,2-dichloropropane	3.828	77	1581	0.50	ug/L	79
38) cis-1,2-dichloroethene	3.817	96	1173	0.50	ug/L	88
39) propionitrile	3.833	54	1306	4.46	ug/L	83
41) bromochloromethane	3.980	128	473	0.38	ug/L	80
43) chloroform	4.032	83	2037	0.52	ug/L	90
45) methacrylonitrile	3.938	67	361	0.40	ug/L	# 58
46) 1,1,1-trichloroethane	4.174	97	1843	0.50	ug/L	# 49
47) cyclohexane	4.237	84	1290	0.49	ug/L	# 89
48) 1,1-dichloropropene	4.273	75	1409	0.49	ug/L	92
49) carbon tetrachloride	4.289	119	1572	0.47	ug/L	91
54) n-butyl alcohol	4.756	56	2079	24.02	ug/L	87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65564.D
 Acq On : 7 Mar 2020 3:43 pm
 Operator : PrashanS
 Sample : IC2712-0.5
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 09 10:09:45 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:17:57 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
55) benzene	4.431	78	4069	0.53	ug/L	96
56) tert-amyl methyl ether	4.493	73	3207	0.51	ug/L	89
60) 1,2-dichloroethane	4.446	62	1706	0.56	ug/L	78
61) trichloroethene	4.887	95	1084	0.48	ug/L	93
62) ethyl acrylate	4.913	55	1298	0.44	ug/L	74
64) 2-chloroethyl vinyl ether	5.469	63	3449	2.29	ug/L	96
66) 1,2-dichloropropane	5.086	63	968	0.49	ug/L	88
68) dibromomethane	5.154	93	635	0.40	ug/L	# 75
69) bromodichloromethane	5.269	83	1301	0.42	ug/L	81
71) cis-1,3-dichloropropene	5.615	75	1453	0.43	ug/L	80
72) 4-methyl-2-pentanone	5.710	58	1829	1.97	ug/L	# 83
76) toluene	5.899	92	2608	0.54	ug/L	88
77) ethyl methacrylate	6.093	69	1139	0.42	ug/L	# 73
78) trans-1,3-dichloropropene	6.066	75	1412	0.46	ug/L	93
79) 1,1,2-trichloroethane	6.234	83	844	0.52	ug/L	# 72
80) 2-hexanone	6.407	58	1506	1.67	ug/L	93
81) tetrachloroethene	6.334	164	922	0.46	ug/L	92
82) 1,3-dichloropropane	6.386	76	1487	0.50	ug/L	89
83) butyl acetate	6.502	56	646	0.47	ug/L	# 60
84) dibromochloromethane	6.570	129	1113	0.43	ug/L	87
85) 1,2-dibromoethane	6.685	107	1144	0.46	ug/L	89
86) n-butyl ether	7.178	57	3653	0.50	ug/L	95
87) chlorobenzene	7.120	112	3316	0.58	ug/L	88
88) 1,1,1,2-tetrachloroethane	7.188	131	1038	0.46	ug/L	92
89) ethylbenzene	7.194	91	4654	0.51	ug/L	96
90) m,p-xylene	7.314	106	3564	0.99	ug/L	90
91) o-xylene	7.671	91	3759	0.52	ug/L	91
92) styrene	7.686	104	2678	0.45	ug/L	94
95) bromoform	7.859	173	826	0.44	ug/L	90
96) isopropylbenzene	8.006	105	4252	0.48	ug/L	94
100) bromobenzene	8.316	156	1260	0.52	ug/L	92
101) 1,1,2,2-tetrachloroethane	8.284	83	1254	0.49	ug/L	78
104) n-propylbenzene	8.405	91	4820	0.53	ug/L	89
105) 2-chlorotoluene	8.494	126	1105	0.53	ug/L	97
106) 4-chlorotoluene	8.614	126	881	0.42	ug/L	94
107) 1,3,5-trimethylbenzene	8.578	105	3245	0.49	ug/L	95
108) tert-butylbenzene	8.882	134	541	0.40	ug/L	# 58
109) 1,2,4-trimethylbenzene	8.934	105	3359	0.51	ug/L	80
110) sec-butylbenzene	9.097	105	3872	0.50	ug/L	87
111) 1,3-dichlorobenzene	9.223	146	2045	0.50	ug/L	86
112) p-isopropyltoluene	9.244	119	2967	0.44	ug/L	97
113) 1,4-dichlorobenzene	9.322	146	2113	0.51	ug/L	96
114) 1,2-dichlorobenzene	9.668	146	1873	0.48	ug/L	96
115) benzyl chloride	9.427	91	1792	0.41	ug/L	# 59
116) n-butylbenzene	9.653	92	1212	0.42	ug/L	# 66
120) 1,3,5-trichlorobenzene	10.638	180	1281	0.49	ug/L	# 64

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
Data File : 2V65564.D
Acq On : 7 Mar 2020 3:43 pm
Operator : Prashans
Sample : IC2712-0.5
Misc : MS41182,V2V2712,5,,,1
ALS Vial : 3 Sample Multiplier: 1

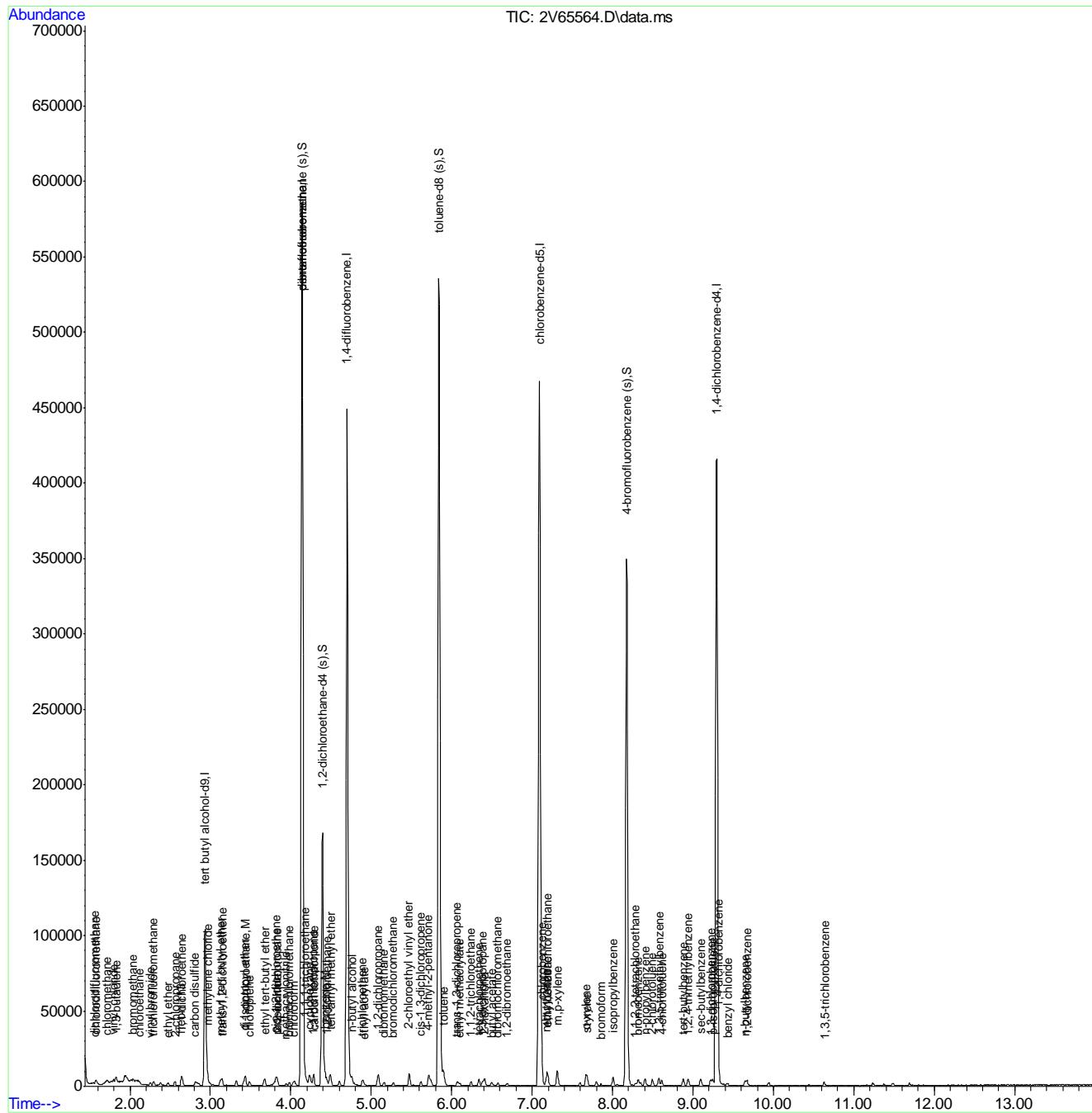
Quant Time: Mar 09 10:09:45 2020

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M

Quant Title : SW 846 Method 8260C, RxI-624 (30m x 0.25mm x 1.4um)

Last Update : Mon Mar 09 08:17:57 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65565.D
 Acq On : 7 Mar 2020 4:08 pm
 Operator : PrashanS
 Sample : IC2712-1
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 09 10:01:38 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:17:57 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	93928	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	230775	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.703	114	316787	50.00	ug/L	0.00
74) chlorobenzene-d5	7.094	117	259754	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.296	152	116643	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	102877	49.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 99.58%		
53) 1,2-dichloroethane-d4 (s)	4.394	65	96095	49.70	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 99.40%		
75) toluene-d8 (s)	5.841	98	331848	50.71	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 101.42%		
99) 4-bromofluorobenzene (s)	8.174	95	108748	51.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 102.46%		
Target Compounds						
				Qvalue		
2) ethanol	2.375	45	3260	118.45	ug/L	90
3) tertiary butyl alcohol	2.989	59	2092	6.11	ug/L	91
6) chlorodifluoromethane	1.578	51	2791	1.06	ug/L	93
7) dichlorodifluoromethane	1.573	85	2689	1.04	ug/L	94
8) chloromethane	1.715	50	2411	1.13	ug/L	93
9) vinyl chloride	1.799	62	2624	1.02	ug/L	90
10) bromomethane	2.045	96	1268	1.01	ug/L	84
11) chloroethane	2.118	64	1440	1.16	ug/L	84
12) trichlorofluoromethane	2.291	101	3802	1.03	ug/L	94
13) vinyl bromide	2.250	106	1717	1.03	ug/L	92
14) 1,3-butadiene	1.830	54	1805	1.06	ug/L	88
15) ethyl ether	2.470	74	1130	1.07	ug/L	91
16) 2-chloroproppane	2.559	43	3292	1.07	ug/L	94
18) freon 113	2.638	151	1727	0.94	ug/L	87
19) 1,1-dichloroethene	2.643	61	3076	1.03	ug/L	87
20) acetone	2.648	58	726	3.75	ug/L #	85
21) acetonitrile	2.837	41	2800	10.43	ug/L	99
23) carbon disulfide	2.816	76	4508	1.03	ug/L	92
24) methylene chloride	2.963	84	2241	1.12	ug/L	96
26) methyl tert butyl ether	3.130	73	5927	0.99	ug/L	96
27) trans-1,2-dichloroethene	3.146	96	2172	1.10	ug/L	85
28) hexane	3.319	56	1205	0.96	ug/L #	76
29) di-isopropyl ether	3.429	45	5885	1.03	ug/L	97
30) ethyl tert-butyl ether	3.676	59	6170	1.03	ug/L	96
31) 1,1-dichloroethane	3.434	63	3662	1.09	ug/L	98
32) chloroprene	3.482	53	2662	0.93	ug/L	94
36) 2-butanone	3.786	72	962	3.35	ug/L #	60
37) 2,2-dichloropropane	3.828	77	3176	1.03	ug/L	92
38) cis-1,2-dichloroethene	3.817	96	2484	1.09	ug/L	77
39) propionitrile	3.833	54	2727	9.52	ug/L	81
41) bromochloromethane	3.980	128	1089	0.89	ug/L	93
43) chloroform	4.032	83	4347	1.14	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65565.D
 Acq On : 7 Mar 2020 4:08 pm
 Operator : PrashanS
 Sample : IC2712-1
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 09 10:01:38 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:17:57 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) methacrylonitrile	3.938	67	830	0.94	ug/L	85
46) 1,1,1-trichloroethane	4.168	97	3663	1.02	ug/L #	40
47) cyclohexane	4.231	84	2617	1.01	ug/L #	87
48) 1,1-dichloropropene	4.279	75	2957	1.05	ug/L	94
49) carbon tetrachloride	4.289	119	3045	0.94	ug/L	97
54) n-butyl alcohol	4.761	56	3793	44.74	ug/L	98
55) benzene	4.425	78	7881	1.05	ug/L	98
56) tert-amyl methyl ether	4.488	73	6418	1.04	ug/L	95
57) iso-octane	4.494	57	4582	1.07	ug/L	95
58) heptane	4.604	57	1027	1.06	ug/L	92
60) 1,2-dichloroethane	4.446	62	3383	1.14	ug/L	91
61) trichloroethene	4.892	95	2265	1.02	ug/L	89
62) ethyl acrylate	4.913	55	2930	1.01	ug/L	89
64) 2-chloroethyl vinyl ether	5.469	63	6558	4.45	ug/L	95
66) 1,2-dichloropropane	5.086	63	1867	0.96	ug/L	92
67) methylcyclohexane	5.081	83	3035	0.99	ug/L	98
68) dibromomethane	5.154	93	1518	0.99	ug/L	91
69) bromodichloromethane	5.275	83	2942	0.97	ug/L	96
70) epichlorohydrin	5.521	57	1185	4.68	ug/L	84
71) cis-1,3-dichloropropene	5.621	75	3346	1.01	ug/L	92
72) 4-methyl-2-pentanone	5.715	58	3378	3.72	ug/L	95
73) 3-methyl-1-butanol	5.736	70	1259	14.80	ug/L	91
76) toluene	5.899	92	5066	1.05	ug/L	94
77) ethyl methacrylate	6.098	69	2554	0.96	ug/L	83
78) trans-1,3-dichloropropene	6.072	75	2908	0.96	ug/L	95
79) 1,1,2-trichloroethane	6.239	83	1584	0.98	ug/L	94
80) 2-hexanone	6.407	58	3401	3.80	ug/L	96
81) tetrachloroethene	6.339	164	2017	1.02	ug/L	86
82) 1,3-dichloropropane	6.381	76	3118	1.05	ug/L	87
83) butyl acetate	6.491	56	1175	0.85	ug/L	94
84) dibromochloromethane	6.570	129	2364	0.93	ug/L	95
85) 1,2-dibromoethane	6.685	107	2345	0.95	ug/L	92
86) n-butyl ether	7.173	57	7206	0.98	ug/L	96
87) chlorobenzene	7.115	112	5979	1.06	ug/L	99
88) 1,1,1,2-tetrachloroethane	7.194	131	2213	0.99	ug/L	83
89) ethylbenzene	7.194	91	9273	1.01	ug/L	97
90) m,p-xylene	7.314	106	7249	2.02	ug/L	94
91) o-xylene	7.666	91	7344	1.01	ug/L	100
92) styrene	7.687	104	5551	0.93	ug/L	96
93) butyl acrylate	7.592	56	1431	0.79	ug/L #	78
94) n-amyl acetate	7.797	70	1167	0.80	ug/L	87
95) bromoform	7.860	173	1570	0.84	ug/L	94
96) isopropylbenzene	8.006	105	8783	0.99	ug/L	99
100) bromobenzene	8.316	156	2653	1.10	ug/L #	77
101) 1,1,2,2-tetrachloroethane	8.290	83	2639	1.05	ug/L	82
103) 1,2,3-trichloropropane	8.352	110	650	0.85	ug/L	94
104) n-propylbenzene	8.400	91	9519	1.04	ug/L	98
105) 2-chlorotoluene	8.499	126	2269	1.09	ug/L	84
106) 4-chlorotoluene	8.620	126	2005	0.96	ug/L #	58
107) 1,3,5-trimethylbenzene	8.578	105	6734	1.02	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65565.D
 Acq On : 7 Mar 2020 4:08 pm
 Operator : PrashanS
 Sample : IC2712-1
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 09 10:01:38 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:17:57 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) tert-butylbenzene	8.877	134	1361	1.02	ug/L	# 89
109) 1,2,4-trimethylbenzene	8.940	105	6509	0.98	ug/L	95
110) sec-butylbenzene	9.097	105	7901	1.03	ug/L	97
111) 1,3-dichlorobenzene	9.223	146	4220	1.04	ug/L	92
112) p-isopropyltoluene	9.244	119	6556	0.99	ug/L	93
113) 1,4-dichlorobenzene	9.317	146	4444	1.08	ug/L	89
114) 1,2-dichlorobenzene	9.668	146	3818	0.99	ug/L	99
115) benzyl chloride	9.422	91	3539	0.81	ug/L	94
116) n-butylbenzene	9.647	92	2551	0.88	ug/L	91
117) hexachloroethane	9.936	201	1109	0.95	ug/L	# 86
118) 1,2-dibromo-3-chloropr...	10.444	157	485	0.75	ug/L	88
120) 1,3,5-trichlorobenzene	10.633	180	2430	0.94	ug/L	94
121) 1,2,4-trichlorobenzene	11.236	180	1913	0.88	ug/L	92
122) hexachlorobutadiene	11.372	225	931	1.04	ug/L	99
123) naphthalene	11.483	128	4928	0.84	ug/L	93
124) 1,2,3-trichlorobenzene	11.692	180	1642	0.89	ug/L	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
Data File : 2V65565.D
Acq On : 7 Mar 2020 4:08 pm
Operator : PrashanS
Sample : IC2712-1
Misc : MS41182,V2V2712,5,,,1
ALS Vial : 4 Sample Multiplier: 1

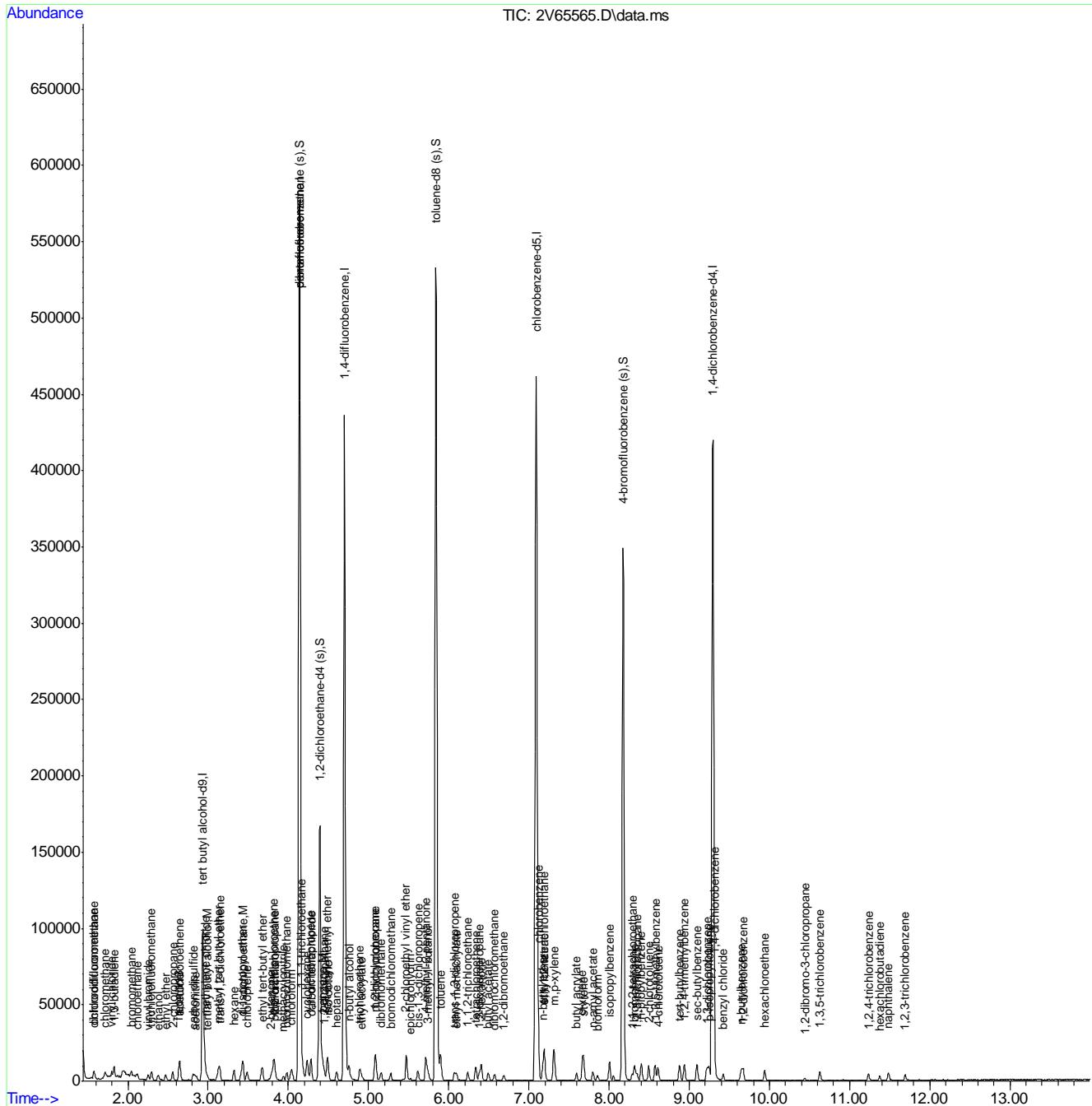
Quant Time: Mar 09 10:01:38 2020

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M

Quant Title : SW 846 Method 8260C, RxI-624 (30m x 0.25mm x 1.4um

QLast Update : Mon Mar 09 08:17:57 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65566.D
 Acq On : 7 Mar 2020 4:34 pm
 Operator : PrashanS
 Sample : IC2712-2
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 10:04:04 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:29:00 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	100844	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	232966	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.698	114	318440	50.00	ug/L	0.00
74) chlorobenzene-d5	7.089	117	259432	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.296	152	117097	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	105105	50.66	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	101.32%	
53) 1,2-dichloroethane-d4 (s)	4.389	65	98230	51.07	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	102.14%	
75) toluene-d8 (s)	5.841	98	332900	50.33	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.66%	
99) 4-bromofluorobenzene (s)	8.174	95	108697	50.37	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.74%	
Target Compounds						
					Qvalue	
2) ethanol	2.375	45	6640	212.21	ug/L	97
3) tertiary butyl alcohol	2.989	59	4116	10.59	ug/L	88
4) 1,4-dioxane	5.133	88	1642	48.45	ug/L	100
6) chlorodifluoromethane	1.584	51	5479	2.01	ug/L	98
7) dichlorodifluoromethane	1.573	85	5480	2.08	ug/L	97
8) chloromethane	1.715	50	4884	2.14	ug/L	99
9) vinyl chloride	1.799	62	5253	2.07	ug/L	95
10) bromomethane	2.040	96	2335	1.80	ug/L	83
11) chloroethane	2.118	64	2626	1.98	ug/L	96
12) trichlorofluoromethane	2.291	101	7789	2.06	ug/L	99
13) vinyl bromide	2.249	106	3538	2.02	ug/L	91
14) 1,3-butadiene	1.830	54	3195	1.85	ug/L	92
15) ethyl ether	2.470	74	2230	2.05	ug/L	94
16) 2-chloropropane	2.559	43	6419	2.01	ug/L	96
18) freon 113	2.637	151	3704	2.02	ug/L	95
19) 1,1-dichloroethene	2.643	61	5919	1.98	ug/L	93
20) acetone	2.648	58	1439	7.52	ug/L	97
21) acetonitrile	2.837	41	5644	20.34	ug/L	97
22) iodomethane	2.758	142	373	0.34	ug/L #	40
23) carbon disulfide	2.816	76	8872	1.94	ug/L	99
24) methylene chloride	2.968	84	4269	2.03	ug/L	93
25) methyl acetate	2.858	43	3526	2.03	ug/L	89
26) methyl tert butyl ether	3.130	73	12075	2.01	ug/L	96
27) trans-1,2-dichloroethene	3.146	96	4032	2.00	ug/L	93
28) hexane	3.324	56	2289	1.86	ug/L	92
29) di-isopropyl ether	3.429	45	11553	1.97	ug/L	98
30) ethyl tert-butyl ether	3.676	59	12210	2.02	ug/L	99
31) 1,1-dichloroethane	3.434	63	6847	1.98	ug/L	97
32) chloroprene	3.482	53	5331	1.90	ug/L	97
33) acrylonitrile	3.104	53	1453	1.86	ug/L	91
36) 2-butanone	3.780	72	2128	7.63	ug/L #	65
37) 2,2-dichloropropane	3.828	77	6407	1.99	ug/L	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65566.D
 Acq On : 7 Mar 2020 4:34 pm
 Operator : PrashanS
 Sample : IC2712-2
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 10:04:04 2020

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M

Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)

QLast Update : Mon Mar 09 08:29:00 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) cis-1,2-dichloroethene	3.812	96	4671	2.00	ug/L	89
39) propionitrile	3.828	54	5797	20.45	ug/L	89
41) bromochloromethane	3.980	128	2317	1.92	ug/L	83
43) chloroform	4.032	83	8094	2.03	ug/L	94
45) methacrylonitrile	3.943	67	1527	1.76	ug/L	85
46) 1,1,1-trichloroethane	4.174	97	6905	1.92	ug/L	77
47) cyclohexane	4.237	84	5549	2.11	ug/L	92
48) 1,1-dichloropropene	4.279	75	5457	1.92	ug/L	97
49) carbon tetrachloride	4.284	119	6260	1.94	ug/L	97
51) tert-amyl alcohol	4.373	55	1036	9.21	ug/L #	81
54) n-butyl alcohol	4.756	56	8077	99.28	ug/L	95
55) benzene	4.425	78	15670	2.02	ug/L	99
56) tert-amyl methyl ether	4.494	73	12395	1.96	ug/L	96
57) iso-octane	4.488	57	8765	1.99	ug/L	96
58) heptane	4.604	57	2033	2.05	ug/L	90
59) isopropyl acetate	4.399	87	1175	2.18	ug/L #	60
60) 1,2-dichloroethane	4.446	62	6034	1.93	ug/L	95
61) trichloroethene	4.892	95	4396	1.98	ug/L	91
62) ethyl acrylate	4.913	55	5390	1.86	ug/L	90
63) 2-nitropropane	5.437	41	1166	1.93	ug/L	88
64) 2-chloroethyl vinyl ether	5.474	63	13781	9.59	ug/L	96
65) methyl methacrylate	5.091	100	1240	1.94	ug/L #	88
66) 1,2-dichloropropane	5.091	63	3954	2.03	ug/L	95
67) methylcyclohexane	5.081	83	6020	1.97	ug/L	99
68) dibromomethane	5.154	93	3109	2.05	ug/L	97
69) bromodichloromethane	5.275	83	6067	2.04	ug/L	90
70) epichlorohydrin	5.521	57	2558	10.30	ug/L	92
71) cis-1,3-dichloropropene	5.616	75	6408	1.99	ug/L	97
72) 4-methyl-2-pentanone	5.710	58	7069	7.93	ug/L	83
73) 3-methyl-1-butanol	5.736	70	3157	38.81	ug/L	82
76) toluene	5.899	92	9697	1.96	ug/L	91
77) ethyl methacrylate	6.098	69	5116	1.96	ug/L	97
78) trans-1,3-dichloropropene	6.072	75	5920	1.99	ug/L	98
79) 1,1,2-trichloroethane	6.239	83	3393	2.06	ug/L	90
80) 2-hexanone	6.407	58	6831	7.95	ug/L	96
81) tetrachloroethene	6.339	164	3665	1.87	ug/L	83
82) 1,3-dichloropropane	6.386	76	6017	2.04	ug/L	97
83) butyl acetate	6.496	56	2645	1.95	ug/L	94
84) dibromochloromethane	6.575	129	5045	2.03	ug/L	89
85) 1,2-dibromoethane	6.685	107	5006	2.05	ug/L	91
86) n-butyl ether	7.173	57	14420	1.99	ug/L	99
87) chlorobenzene	7.120	112	11833	2.02	ug/L	97
88) 1,1,1,2-tetrachloroethane	7.188	131	4355	1.96	ug/L	90
89) ethylbenzene	7.199	91	18510	1.99	ug/L	98
90) m,p-xylene	7.314	106	14286	4.02	ug/L	83
91) o-xylene	7.671	91	14395	1.99	ug/L	99
92) styrene	7.681	104	10817	1.88	ug/L	95
93) butyl acrylate	7.592	56	3141	1.78	ug/L	91
94) n-amyl acetate	7.797	70	2572	1.84	ug/L	92
95) bromoform	7.860	173	3211	1.81	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65566.D
 Acq On : 7 Mar 2020 4:34 pm
 Operator : PrashanS
 Sample : IC2712-2
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 10:04:04 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:29:00 2020
 Response via : Initial Calibration

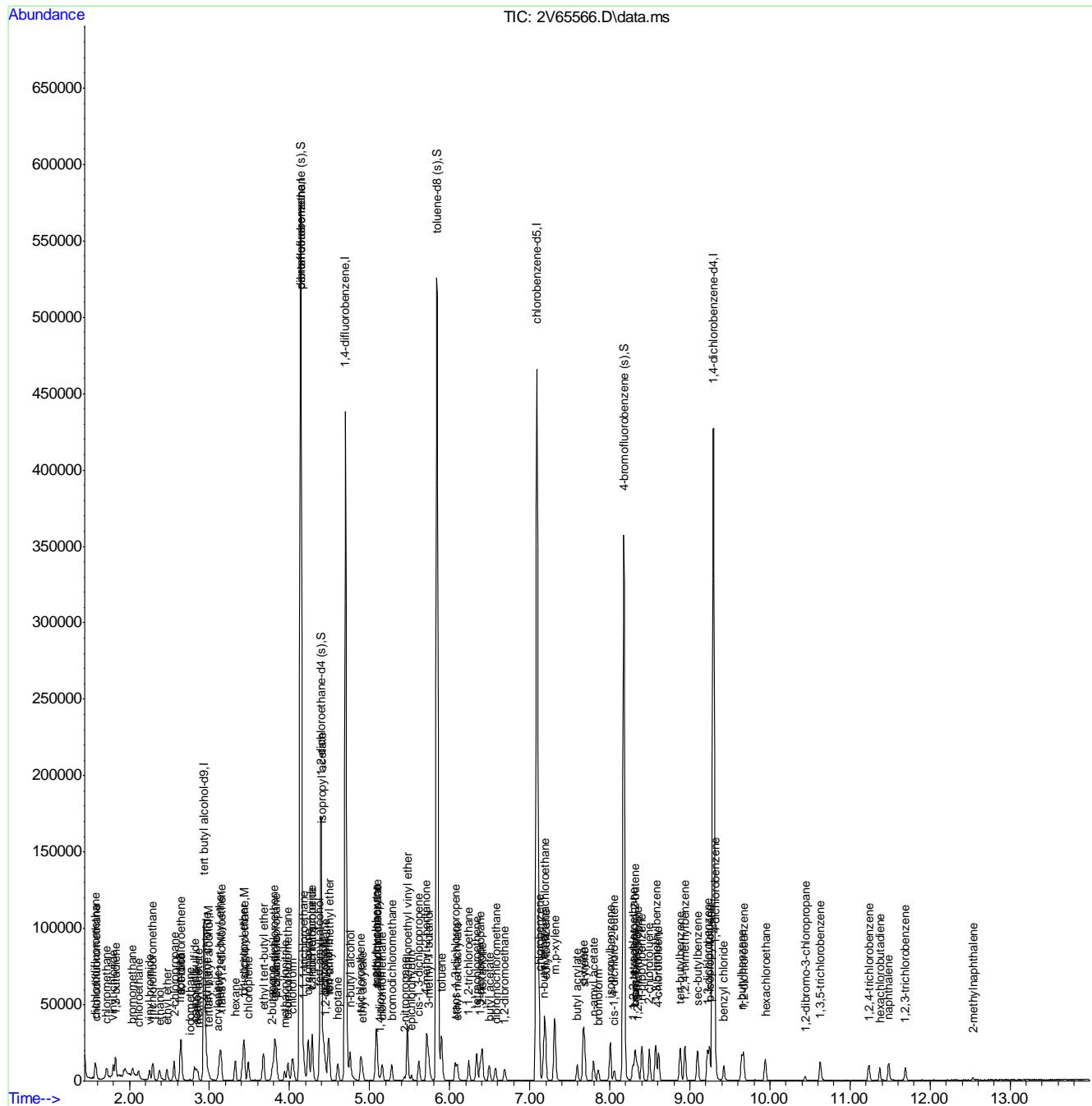
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96) isopropylbenzene	8.006	105	17296	1.99	ug/L	97
97) cis-1,4-dichloro-2-butene	8.054	88	1691	1.57	ug/L	93
100) bromobenzene	8.316	156	5116	2.02	ug/L	94
101) 1,1,2,2-tetrachloroethane	8.289	83	5365	2.07	ug/L	100
102) trans-1,4-dichloro-2-b...	8.321	53	1166	1.74	ug/L	86
103) 1,2,3-trichloropropane	8.347	110	1762	2.25	ug/L	80
104) n-propylbenzene	8.400	91	18442	1.96	ug/L	100
105) 2-chlorotoluene	8.494	126	4572	2.11	ug/L	84
106) 4-chlorotoluene	8.609	126	4120	1.97	ug/L	86
107) 1,3,5-trimethylbenzene	8.578	105	13140	1.97	ug/L	99
108) tert-butylbenzene	8.882	134	2570	1.95	ug/L	92
109) 1,2,4-trimethylbenzene	8.940	105	12643	1.89	ug/L	98
110) sec-butylbenzene	9.097	105	15409	1.99	ug/L	97
111) 1,3-dichlorobenzene	9.223	146	8293	2.02	ug/L	93
112) p-isopropyltoluene	9.244	119	12663	1.92	ug/L	97
113) 1,4-dichlorobenzene	9.317	146	8709	2.03	ug/L	94
114) 1,2-dichlorobenzene	9.674	146	8078	2.07	ug/L	93
115) benzyl chloride	9.422	91	7632	1.82	ug/L	94
116) n-butylbenzene	9.647	92	5326	1.88	ug/L	85
117) hexachloroethane	9.946	201	2202	1.88	ug/L	86
118) 1,2-dibromo-3-chloropr...	10.439	157	1132	1.79	ug/L	93
120) 1,3,5-trichlorobenzene	10.633	180	5354	2.01	ug/L	95
121) 1,2,4-trichlorobenzene	11.236	180	4273	1.99	ug/L	85
122) hexachlorobutadiene	11.372	225	1845	1.98	ug/L	93
123) naphthalene	11.482	128	10548	1.84	ug/L	94
124) 1,2,3-trichlorobenzene	11.692	180	3516	1.91	ug/L	86
126) 2-methylnaphthalene	12.536	142	857	0.84	ug/L	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
Data File : 2V65566.D
Acq On : 7 Mar 2020 4:34 pm
Operator : PrashanS
Sample : IC2712-2
Misc : MS41182,V2V2712,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 10:04:04 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
QLast Update : Mon Mar 09 08:29:00 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65567.D
 Acq On : 7 Mar 2020 4:59 pm
 Operator : PrashanS
 Sample : IC2712-4
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 09 10:04:59 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:29:00 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	105246	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	231726	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.703	114	321905	50.00	ug/L	0.00
74) chlorobenzene-d5	7.089	117	264371	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.296	152	120670	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	104598	50.69	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	101.38%	
53) 1,2-dichloroethane-d4 (s)	4.389	65	99452	51.15	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	102.30%	
75) toluene-d8 (s)	5.841	98	335630	49.80	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	99.60%	
99) 4-bromofluorobenzene (s)	8.174	95	110619	49.74	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	99.48%	
Target Compounds						
				Qvalue		
2) ethanol	2.375	45	12638	387.00	ug/L	97
3) tertiary butyl alcohol	2.989	59	8087	19.94	ug/L	94
4) 1,4-dioxane	5.133	88	3471	98.13	ug/L	97
6) chlorodifluoromethane	1.584	51	10677	3.94	ug/L	98
7) dichlorodifluoromethane	1.573	85	10532	4.02	ug/L	98
8) chloromethane	1.715	50	8930	3.93	ug/L	96
9) vinyl chloride	1.799	62	10038	3.97	ug/L	94
10) bromomethane	2.045	96	4764	3.70	ug/L	95
11) chloroethane	2.119	64	5011	3.80	ug/L	100
12) trichlorofluoromethane	2.292	101	14580	3.87	ug/L	92
13) vinyl bromide	2.255	106	6875	3.95	ug/L	90
14) 1,3-butadiene	1.825	54	6929	4.03	ug/L	95
15) ethyl ether	2.470	74	4148	3.84	ug/L	98
16) 2-chloropropane	2.559	43	12815	4.04	ug/L	92
17) acrolein	2.564	56	1104	3.79	ug/L	80
18) freon 113	2.638	151	7435	4.07	ug/L	98
19) 1,1-dichloroethene	2.643	61	11551	3.89	ug/L	96
20) acetone	2.653	58	3203	16.83	ug/L	93
21) acetonitrile	2.837	41	11613	42.08	ug/L	97
22) iodomethane	2.753	142	1405	1.30	ug/L	85
23) carbon disulfide	2.816	76	18011	3.95	ug/L	100
24) methylene chloride	2.963	84	8132	3.89	ug/L	97
25) methyl acetate	2.853	43	6769	3.92	ug/L	87
26) methyl tert butyl ether	3.130	73	23984	4.01	ug/L	98
27) trans-1,2-dichloroethene	3.146	96	8073	4.03	ug/L	93
28) hexane	3.319	56	4828	3.95	ug/L	95
29) di-isopropyl ether	3.429	45	23489	4.03	ug/L	99
30) ethyl tert-butyl ether	3.670	59	24158	4.01	ug/L	98
31) 1,1-dichloroethane	3.434	63	13580	3.94	ug/L	99
32) chloroprene	3.487	53	11098	3.98	ug/L	97
33) acrylonitrile	3.104	53	3081	3.97	ug/L	94
34) vinyl acetate	3.408	86	1510	3.55	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65567.D
 Acq On : 7 Mar 2020 4:59 pm
 Operator : PrashanS
 Sample : IC2712-4
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 09 10:04:59 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:29:00 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl acetate	3.801	45	1257	3.49	ug/L	# 1
36) 2-butanone	3.786	72	4356	15.71	ug/L	94
37) 2,2-dichloropropane	3.822	77	12251	3.83	ug/L	97
38) cis-1,2-dichloroethene	3.812	96	9185	3.95	ug/L	96
39) propionitrile	3.828	54	11392	40.40	ug/L	97
40) methyl acrylate	3.843	85	1421	4.01	ug/L	# 63
41) bromochloromethane	3.980	128	4900	4.08	ug/L	98
42) tetrahydrofuran	3.995	71	1171	3.95	ug/L	# 79
43) chloroform	4.032	83	15747	3.98	ug/L	93
45) methacrylonitrile	3.938	67	3357	3.90	ug/L	99
46) 1,1,1-trichloroethane	4.174	97	13942	3.90	ug/L	94
47) cyclohexane	4.237	84	10145	3.89	ug/L	# 81
48) 1,1-dichloropropene	4.279	75	10721	3.80	ug/L	99
49) carbon tetrachloride	4.289	119	12315	3.84	ug/L	92
50) isobutyl alcohol	4.279	42	2657	36.41	ug/L	92
51) tert-amyl alcohol	4.373	55	2218	19.82	ug/L	89
54) n-butyl alcohol	4.756	56	15799	192.11	ug/L	96
55) benzene	4.425	78	30284	3.87	ug/L	98
56) tert-amyl methyl ether	4.488	73	24522	3.83	ug/L	99
57) iso-octane	4.494	57	17182	3.86	ug/L	96
58) heptane	4.604	57	3733	3.72	ug/L	# 82
59) isopropyl acetate	4.394	87	2040	3.75	ug/L	# 63
60) 1,2-dichloroethane	4.446	62	12515	3.97	ug/L	99
61) trichloroethene	4.892	95	8745	3.90	ug/L	99
62) ethyl acrylate	4.913	55	11536	3.93	ug/L	97
63) 2-nitropropane	5.437	41	2327	3.80	ug/L	80
64) 2-chloroethyl vinyl ether	5.474	63	29128	20.05	ug/L	96
65) methyl methacrylate	5.091	100	2254	3.50	ug/L	94
66) 1,2-dichloropropane	5.086	63	7816	3.97	ug/L	97
67) methylcyclohexane	5.081	83	11678	3.79	ug/L	96
68) dibromomethane	5.159	93	6308	4.11	ug/L	95
69) bromodichloromethane	5.275	83	11856	3.94	ug/L	98
70) epichlorohydrin	5.521	57	4862	19.36	ug/L	78
71) cis-1,3-dichloropropene	5.616	75	12936	3.97	ug/L	94
72) 4-methyl-2-pentanone	5.715	58	14070	15.62	ug/L	86
73) 3-methyl-1-butanol	5.736	70	6124	74.48	ug/L	91
76) toluene	5.899	92	19599	3.88	ug/L	99
77) ethyl methacrylate	6.098	69	10433	3.93	ug/L	96
78) trans-1,3-dichloropropene	6.072	75	11571	3.81	ug/L	96
79) 1,1,2-trichloroethane	6.240	83	6558	3.91	ug/L	93
80) 2-hexanone	6.402	58	13930	15.91	ug/L	96
81) tetrachloroethene	6.339	164	7713	3.85	ug/L	95
82) 1,3-dichloropropane	6.386	76	12338	4.10	ug/L	97
83) butyl acetate	6.496	56	5695	4.11	ug/L	91
84) dibromochloromethane	6.575	129	9624	3.80	ug/L	94
85) 1,2-dibromoethane	6.690	107	10126	4.06	ug/L	98
86) n-butyl ether	7.173	57	29052	3.93	ug/L	98
87) chlorobenzene	7.120	112	23329	3.91	ug/L	98
88) 1,1,1,2-tetrachloroethane	7.194	131	8498	3.75	ug/L	95
89) ethylbenzene	7.199	91	36741	3.87	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65567.D
 Acq On : 7 Mar 2020 4:59 pm
 Operator : PrashanS
 Sample : IC2712-4
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 09 10:04:59 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:29:00 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) m,p-xylene	7.314	106	27867	7.69	ug/L	88
91) o-xylene	7.671	91	28610	3.88	ug/L	97
92) styrene	7.681	104	22986	3.93	ug/L	97
93) butyl acrylate	7.592	56	6436	3.59	ug/L	98
94) n-amyl acetate	7.797	70	5550	3.89	ug/L	97
95) bromoform	7.860	173	7026	3.89	ug/L	94
96) isopropylbenzene	8.006	105	34018	3.83	ug/L	99
97) cis-1,4-dichloro-2-butene	8.054	88	3791	3.46	ug/L	93
100) bromobenzene	8.321	156	10228	3.93	ug/L	91
101) 1,1,2,2-tetrachloroethane	8.290	83	11048	4.14	ug/L	95
102) trans-1,4-dichloro-2-b...	8.326	53	2576	3.73	ug/L	91
103) 1,2,3-trichloropropane	8.352	110	3216	3.99	ug/L	91
104) n-propylbenzene	8.400	91	38269	3.95	ug/L	97
105) 2-chlorotoluene	8.494	126	8699	3.90	ug/L	89
106) 4-chlorotoluene	8.615	126	8540	3.96	ug/L	97
107) 1,3,5-trimethylbenzene	8.573	105	27162	3.94	ug/L	97
108) tert-butylbenzene	8.882	134	5242	3.87	ug/L	98
109) 1,2,4-trimethylbenzene	8.940	105	26184	3.81	ug/L	96
110) sec-butylbenzene	9.097	105	31286	3.92	ug/L	96
111) 1,3-dichlorobenzene	9.223	146	16737	3.95	ug/L	97
112) p-isopropyltoluene	9.244	119	25933	3.81	ug/L	98
113) 1,4-dichlorobenzene	9.317	146	17396	3.93	ug/L	97
114) 1,2-dichlorobenzene	9.674	146	15965	3.96	ug/L	97
115) benzyl chloride	9.422	91	16418	3.80	ug/L	93
116) n-butylbenzene	9.648	92	11539	3.96	ug/L	98
117) hexachloroethane	9.941	201	4482	3.71	ug/L	98
118) 1,2-dibromo-3-chloropr...	10.439	157	2283	3.50	ug/L	89
120) 1,3,5-trichlorobenzene	10.628	180	10833	3.94	ug/L	94
121) 1,2,4-trichlorobenzene	11.236	180	8769	3.97	ug/L	96
122) hexachlorobutadiene	11.372	225	3727	3.88	ug/L	93
123) naphthalene	11.483	128	22659	3.83	ug/L	98
124) 1,2,3-trichlorobenzene	11.692	180	7335	3.86	ug/L	95
126) 2-methylnaphthalene	12.536	142	1906	1.81	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
Data File : 2V65567.D
Acq On : 7 Mar 2020 4:59 pm
Operator : Prashans
Sample : IC2712-4
Misc : MS41182,V2V2712,5,,,1
ALS Vial : 6 Sample Multiplier: 1

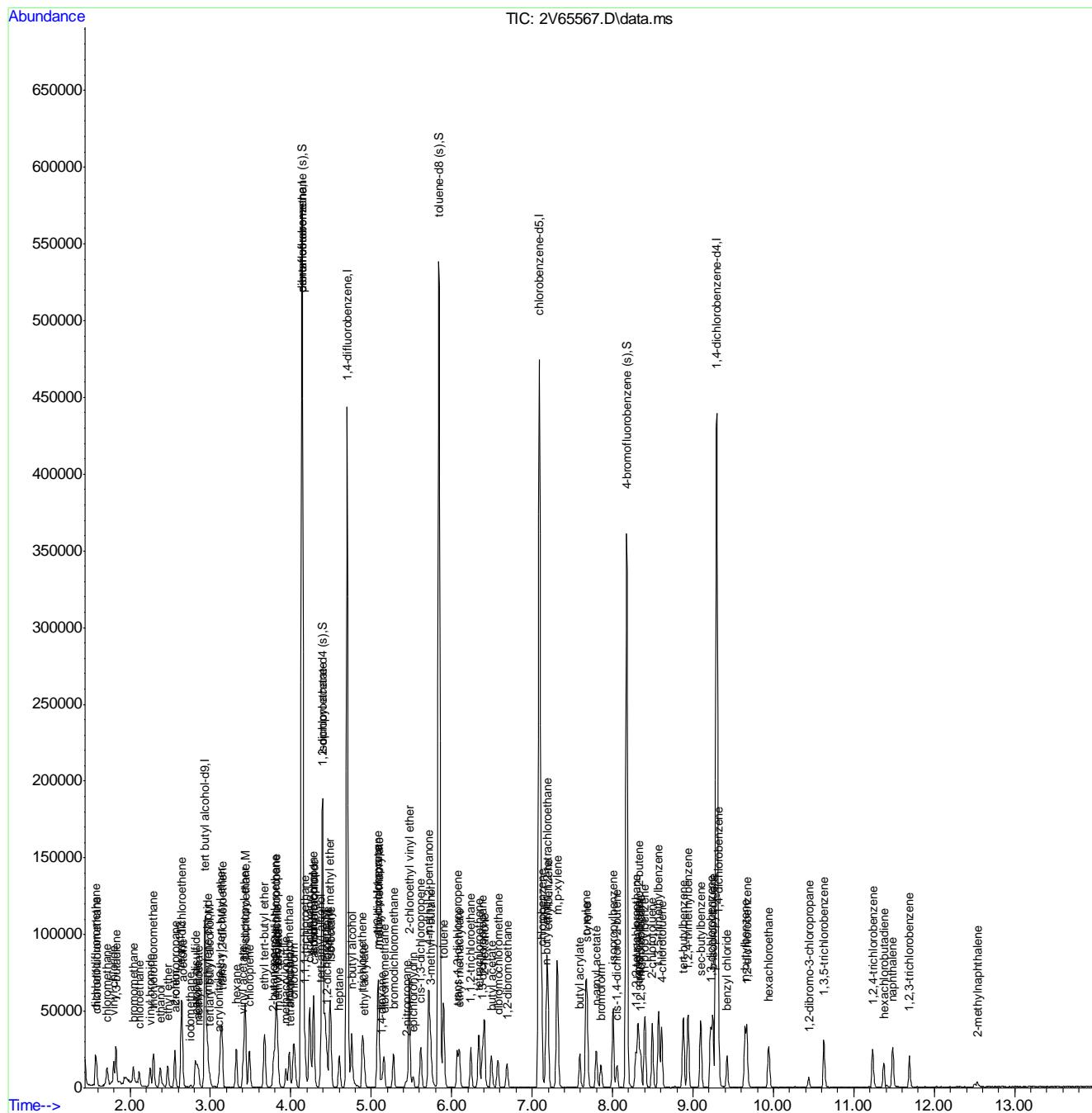
Quant Time: Mar 09 10:04:59 2020

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M

Quant Title : SW 846 Method 8260C, Rx1-624 (30m x 0.25mm x 1.4um)

Last Update : Mon Mar 09 08:29:00 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65568.D
 Acq On : 7 Mar 2020 5:25 pm
 Operator : PrashanS
 Sample : IC2712-8
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 09 10:05:14 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:29:00 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	95645	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	233132	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.703	114	319077	50.00	ug/L	0.00
74) chlorobenzene-d5	7.094	117	260326	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.296	152	119994	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	103586	49.89	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	99.78%	
53) 1,2-dichloroethane-d4 (s)	4.389	65	96688	50.17	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	100.34%	
75) toluene-d8 (s)	5.841	98	338202	50.96	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	101.92%	
99) 4-bromofluorobenzene (s)	8.174	95	111097	50.24	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.48%	
Target Compounds						
				Qvalue		
2) ethanol	2.375	45	23776	801.16	ug/L	98
3) tertiary butyl alcohol	2.989	59	14611	39.64	ug/L	95
4) 1,4-dioxane	5.128	88	6627	206.16	ug/L	98
6) chlorodifluoromethane	1.584	51	21312	7.81	ug/L	95
7) dichlorodifluoromethane	1.573	85	20486	7.77	ug/L	98
8) chloromethane	1.715	50	17754	7.77	ug/L	98
9) vinyl chloride	1.799	62	20694	8.14	ug/L	99
10) bromomethane	2.045	96	9827	7.58	ug/L	91
11) chloroethane	2.119	64	10113	7.63	ug/L	97
12) trichlorofluoromethane	2.297	101	29741	7.86	ug/L	99
13) vinyl bromide	2.250	106	13391	7.65	ug/L	98
14) 1,3-butadiene	1.825	54	13477	7.79	ug/L	94
15) ethyl ether	2.470	74	8544	7.87	ug/L	95
16) 2-chloropropane	2.559	43	24878	7.79	ug/L	99
17) acrolein	2.564	56	2113	7.21	ug/L	98
18) freon 113	2.643	151	15123	8.24	ug/L	93
19) 1,1-dichloroethene	2.648	61	23634	7.91	ug/L	95
20) acetone	2.653	58	5887	30.75	ug/L	94
21) acetonitrile	2.837	41	21470	77.32	ug/L	96
22) iodomethane	2.758	142	4550	4.19	ug/L	99
23) carbon disulfide	2.816	76	35647	7.77	ug/L	98
24) methylene chloride	2.963	84	16338	7.76	ug/L	97
25) methyl acetate	2.853	43	14017	8.06	ug/L	94
26) methyl tert butyl ether	3.130	73	47471	7.89	ug/L	96
27) trans-1,2-dichloroethene	3.146	96	15278	7.59	ug/L	92
28) hexane	3.324	56	9371	7.62	ug/L	94
29) di-isopropyl ether	3.429	45	46866	8.00	ug/L	96
30) ethyl tert-butyl ether	3.676	59	48017	7.92	ug/L	100
31) 1,1-dichloroethane	3.435	63	27415	7.91	ug/L	98
32) chloroprene	3.487	53	22144	7.89	ug/L	97
33) acrylonitrile	3.104	53	6082	7.79	ug/L	95
34) vinyl acetate	3.414	86	3347	7.83	ug/L #	74

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65568.D
 Acq On : 7 Mar 2020 5:25 pm
 Operator : PrashanS
 Sample : IC2712-8
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 09 10:05:14 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:29:00 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl acetate	3.796	45	2616	7.23	ug/L	86
36) 2-butanone	3.786	72	8595	30.81	ug/L	98
37) 2,2-dichloropropane	3.828	77	25047	7.77	ug/L	99
38) cis-1,2-dichloroethene	3.817	96	18233	7.80	ug/L	99
39) propionitrile	3.828	54	22173	78.16	ug/L	98
40) methyl acrylate	3.843	85	2635	7.39	ug/L #	73
41) bromochloromethane	3.980	128	9729	8.06	ug/L	97
42) tetrahydrofuran	3.996	71	2309	7.75	ug/L #	68
43) chloroform	4.032	83	30431	7.64	ug/L	98
45) methacrylonitrile	3.938	67	6633	7.66	ug/L	88
46) 1,1,1-trichloroethane	4.174	97	28617	7.96	ug/L	94
47) cyclohexane	4.231	84	21718	8.27	ug/L #	88
48) 1,1-dichloropropene	4.279	75	22944	8.08	ug/L	96
49) carbon tetrachloride	4.289	119	25855	8.01	ug/L	95
50) isobutyl alcohol	4.279	42	5564	75.79	ug/L #	81
51) tert-amyl alcohol	4.373	55	4424	39.29	ug/L	93
54) n-butyl alcohol	4.756	56	31123	381.79	ug/L	98
55) benzene	4.425	78	60900	7.85	ug/L	98
56) tert-amyl methyl ether	4.488	73	50160	7.90	ug/L	98
57) iso-octane	4.494	57	35179	7.98	ug/L	97
58) heptane	4.604	57	7869	7.90	ug/L	94
59) isopropyl acetate	4.399	87	4155	7.70	ug/L #	91
60) 1,2-dichloroethane	4.446	62	24754	7.91	ug/L	100
61) trichloroethene	4.892	95	17289	7.78	ug/L	97
62) ethyl acrylate	4.913	55	22924	7.88	ug/L	97
63) 2-nitropropane	5.437	41	4317	7.12	ug/L	91
64) 2-chloroethyl vinyl ether	5.474	63	56983	39.56	ug/L	98
65) methyl methacrylate	5.091	100	4972	7.78	ug/L	97
66) 1,2-dichloropropane	5.091	63	15479	7.92	ug/L	97
67) methylcyclohexane	5.081	83	24184	7.91	ug/L	97
68) dibromomethane	5.154	93	12080	7.95	ug/L	97
69) bromodichloromethane	5.275	83	23837	7.98	ug/L	93
70) epichlorohydrin	5.521	57	9535	38.30	ug/L	85
71) cis-1,3-dichloropropene	5.616	75	25776	7.98	ug/L	97
72) 4-methyl-2-pentanone	5.715	58	27688	31.01	ug/L	99
73) 3-methyl-1-butanol	5.736	70	11800	144.78	ug/L	97
76) toluene	5.899	92	40002	8.04	ug/L	96
77) ethyl methacrylate	6.093	69	20822	7.96	ug/L	96
78) trans-1,3-dichloropropene	6.067	75	23344	7.81	ug/L	96
79) 1,1,2-trichloroethane	6.240	83	13004	7.87	ug/L	92
80) 2-hexanone	6.407	58	27321	31.68	ug/L	99
81) tetrachloroethene	6.334	164	16235	8.24	ug/L	94
82) 1,3-dichloropropane	6.381	76	24145	8.15	ug/L	95
83) butyl acetate	6.496	56	10860	7.96	ug/L	88
84) dibromochloromethane	6.575	129	20001	8.02	ug/L	99
85) 1,2-dibromoethane	6.690	107	19539	7.96	ug/L	99
86) n-butyl ether	7.173	57	59552	8.18	ug/L	100
87) chlorobenzene	7.120	112	46958	7.99	ug/L	100
88) 1,1,1,2-tetrachloroethane	7.189	131	17911	8.03	ug/L	96
89) ethylbenzene	7.194	91	73626	7.88	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65568.D
 Acq On : 7 Mar 2020 5:25 pm
 Operator : PrashanS
 Sample : IC2712-8
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 09 10:05:14 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:29:00 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) m,p-xylene	7.314	106	57541	16.13	ug/L	98
91) o-xylene	7.671	91	58258	8.03	ug/L	100
92) styrene	7.681	104	46027	7.99	ug/L	96
93) butyl acrylate	7.592	56	13529	7.66	ug/L	97
94) n-amyl acetate	7.797	70	11030	7.86	ug/L	96
95) bromoform	7.860	173	13687	7.69	ug/L	96
96) isopropylbenzene	8.006	105	68874	7.88	ug/L	97
97) cis-1,4-dichloro-2-butene	8.054	88	7628	7.07	ug/L	93
100) bromobenzene	8.321	156	20004	7.72	ug/L	97
101) 1,1,2,2-tetrachloroethane	8.290	83	21312	8.03	ug/L	95
102) trans-1,4-dichloro-2-b...	8.326	53	5343	7.78	ug/L	84
103) 1,2,3-trichloropropane	8.352	110	6351	7.91	ug/L	96
104) n-propylbenzene	8.400	91	77544	8.06	ug/L	97
105) 2-chlorotoluene	8.494	126	17794	8.01	ug/L	99
106) 4-chlorotoluene	8.609	126	17980	8.39	ug/L	99
107) 1,3,5-trimethylbenzene	8.578	105	55418	8.09	ug/L	99
108) tert-butylbenzene	8.882	134	10866	8.06	ug/L	90
109) 1,2,4-trimethylbenzene	8.940	105	55095	8.05	ug/L	96
110) sec-butylbenzene	9.097	105	63828	8.05	ug/L	99
111) 1,3-dichlorobenzene	9.223	146	33052	7.84	ug/L	97
112) p-isopropyltoluene	9.244	119	54798	8.10	ug/L	99
113) 1,4-dichlorobenzene	9.317	146	34609	7.85	ug/L	98
114) 1,2-dichlorobenzene	9.674	146	32337	8.07	ug/L	98
115) benzyl chloride	9.422	91	31972	7.44	ug/L	97
116) n-butylbenzene	9.648	92	23109	7.98	ug/L	97
117) hexachloroethane	9.946	201	8716	7.26	ug/L	96
118) 1,2-dibromo-3-chloropr...	10.439	157	4675	7.21	ug/L	88
119) nitrobenzene	10.633	77	517	5.43	ug/L #	29
120) 1,3,5-trichlorobenzene	10.628	180	22230	8.14	ug/L	96
121) 1,2,4-trichlorobenzene	11.236	180	18033	8.21	ug/L	98
122) hexachlorobutadiene	11.372	225	7587	7.94	ug/L	94
123) naphthalene	11.483	128	45753	7.78	ug/L	99
124) 1,2,3-trichlorobenzene	11.692	180	14881	7.89	ug/L	98
125) 2-ethylhexyl acrylate	11.414	70	1230	1.22	ug/L	94
126) 2-methylnaphthalene	12.536	142	3396	3.24	ug/L	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
Data File : 2V65568.D
Acq On : 7 Mar 2020 5:25 pm
Operator : PrashanS
Sample : IC2712-8
Misc : MS41182,V2V2712,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

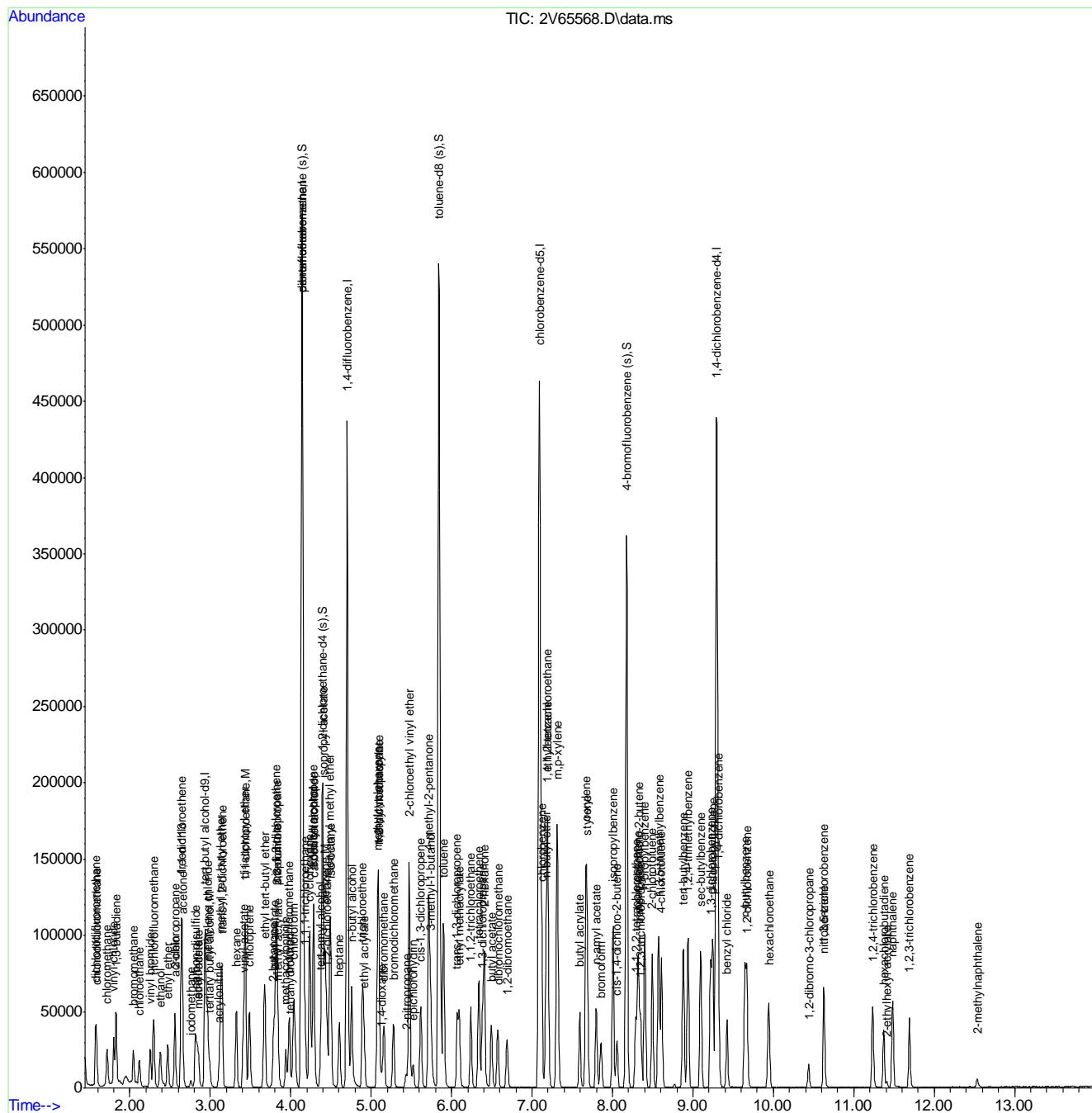
Quant Time: Mar 09 10:05:14 2020

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M

Quant Title : SW 846 Method 8260C, Rx1-624 (30m x 0.25mm x 1.4um)

Last Update : Mon Mar 09 08:29:00 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65569.D
 Acq On : 7 Mar 2020 5:50 pm
 Operator : PrashanS
 Sample : IC2712-20
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 09 10:05:30 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:29:00 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	98841	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	235442	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.703	114	324334	50.00	ug/L	0.00
74) chlorobenzene-d5	7.089	117	265233	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.296	152	122323	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	104151	49.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	99.34%		
53) 1,2-dichloroethane-d4 (s)	4.394	65	95548	48.77	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	97.54%		
75) toluene-d8 (s)	5.841	98	339583	50.22	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	100.44%		
99) 4-bromofluorobenzene (s)	8.174	95	113429	50.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	100.64%		
Target Compounds						
				Qvalue		
2) ethanol	2.375	45	62885	2050.46	ug/L	97
3) tertiary butyl alcohol	2.989	59	38089	100.00	ug/L	96
4) 1,4-dioxane	5.128	88	17256	519.46	ug/L	91
6) chlorodifluoromethane	1.584	51	53163	19.30	ug/L	99
7) dichlorodifluoromethane	1.573	85	52124	19.57	ug/L	99
8) chloromethane	1.715	50	43698	18.93	ug/L	97
9) vinyl chloride	1.799	62	51838	20.20	ug/L	99
10) bromomethane	2.040	96	25016	19.11	ug/L	98
11) chloroethane	2.118	64	24587	18.36	ug/L	93
12) trichlorofluoromethane	2.297	101	75739	19.81	ug/L	98
13) vinyl bromide	2.250	106	33627	19.03	ug/L	99
14) 1,3-butadiene	1.825	54	33626	19.24	ug/L	97
15) ethyl ether	2.470	74	21948	20.01	ug/L	95
16) 2-chloropropane	2.559	43	62900	19.50	ug/L	99
17) acrolein	2.564	56	6182	20.89	ug/L	95
18) freon 113	2.643	151	37060	19.98	ug/L	95
19) 1,1-dichloroethene	2.643	61	59979	19.87	ug/L	99
20) acetone	2.648	58	15815	81.79	ug/L	87
21) acetonitrile	2.832	41	55738	198.76	ug/L	98
22) iodomethane	2.758	142	21016	19.18	ug/L	99
23) carbon disulfide	2.811	76	88840	19.17	ug/L	99
24) methylene chloride	2.963	84	40843	19.22	ug/L	97
25) methyl acetate	2.853	43	34955	19.91	ug/L	98
26) methyl tert butyl ether	3.130	73	123401	20.31	ug/L	100
27) trans-1,2-dichloroethene	3.146	96	39958	19.65	ug/L	98
28) hexane	3.324	56	25220	20.30	ug/L	95
29) di-isopropyl ether	3.429	45	119761	20.24	ug/L	99
30) ethyl tert-butyl ether	3.676	59	123102	20.11	ug/L	99
31) 1,1-dichloroethane	3.434	63	71209	20.34	ug/L	98
32) chloroprene	3.487	53	56787	20.04	ug/L	97
33) acrylonitrile	3.104	53	15776	20.01	ug/L	97
34) vinyl acetate	3.408	86	8747	20.26	ug/L #	86

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65569.D
 Acq On : 7 Mar 2020 5:50 pm
 Operator : PrashanS
 Sample : IC2712-20
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 09 10:05:30 2020

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M

Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)

QLast Update : Mon Mar 09 08:29:00 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl acetate	3.796	45	7710	21.09	ug/L	88
36) 2-butanone	3.786	72	23474	83.33	ug/L	94
37) 2,2-dichloropropane	3.828	77	65107	20.01	ug/L	97
38) cis-1,2-dichloroethene	3.812	96	46608	19.75	ug/L	99
39) propionitrile	3.828	54	59521	207.76	ug/L	99
40) methyl acrylate	3.843	85	7484	20.78	ug/L	98
41) bromochloromethane	3.980	128	24973	20.49	ug/L	98
42) tetrahydrofuran	3.990	71	6140	20.40	ug/L	96
43) chloroform	4.032	83	78824	19.59	ug/L	97
45) methacrylonitrile	3.938	67	18205	20.81	ug/L	95
46) 1,1,1-trichloroethane	4.174	97	72378	19.92	ug/L	98
47) cyclohexane	4.231	84	53792	20.27	ug/L	99
48) 1,1-dichloropropene	4.279	75	56955	19.85	ug/L	95
49) carbon tetrachloride	4.289	119	65577	20.12	ug/L	98
50) isobutyl alcohol	4.284	42	15742	212.34	ug/L	95
51) tert-amyl alcohol	4.373	55	11538	101.46	ug/L	95
54) n-butyl alcohol	4.756	56	85407	1030.72	ug/L	98
55) benzene	4.425	78	155495	19.72	ug/L	98
56) tert-amyl methyl ether	4.488	73	129240	20.03	ug/L	99
57) iso-octane	4.494	57	91241	20.37	ug/L	98
58) heptane	4.604	57	20294	20.06	ug/L	98
59) isopropyl acetate	4.399	87	10596	19.33	ug/L	98
60) 1,2-dichloroethane	4.446	62	62421	19.63	ug/L	96
61) trichloroethene	4.892	95	44752	19.81	ug/L	98
62) ethyl acrylate	4.913	55	59973	20.29	ug/L	99
63) 2-nitropropane	5.437	41	11660	18.91	ug/L	96
64) 2-chloroethyl vinyl ether	5.474	63	149695	102.25	ug/L	99
65) methyl methacrylate	5.091	100	13331	20.53	ug/L	93
66) 1,2-dichloropropane	5.086	63	39888	20.08	ug/L	97
67) methylcyclohexane	5.081	83	62769	20.20	ug/L	96
68) dibromomethane	5.154	93	31418	20.33	ug/L	97
69) bromodichloromethane	5.275	83	60960	20.08	ug/L	100
70) epichlorohydrin	5.521	57	25490	100.74	ug/L	88
71) cis-1,3-dichloropropene	5.616	75	67875	20.68	ug/L	97
72) 4-methyl-2-pentanone	5.715	58	73116	80.55	ug/L	97
73) 3-methyl-1-butanol	5.736	70	33833	408.38	ug/L	99
76) toluene	5.899	92	100782	19.88	ug/L	96
77) ethyl methacrylate	6.093	69	55599	20.85	ug/L	99
78) trans-1,3-dichloropropene	6.072	75	62501	20.51	ug/L	99
79) 1,1,2-trichloroethane	6.239	83	34397	20.44	ug/L	96
80) 2-hexanone	6.407	58	73225	83.35	ug/L	99
81) tetrachloroethene	6.339	164	41080	20.45	ug/L	97
82) 1,3-dichloropropane	6.381	76	63082	20.90	ug/L	99
83) butyl acetate	6.496	56	29312	21.10	ug/L	98
84) dibromochloromethane	6.575	129	51150	20.14	ug/L	94
85) 1,2-dibromoethane	6.685	107	50374	20.14	ug/L	99
86) n-butyl ether	7.173	57	154579	20.85	ug/L	99
87) chlorobenzene	7.115	112	118173	19.72	ug/L	98
88) 1,1,1,2-tetrachloroethane	7.188	131	46808	20.59	ug/L	98
89) ethylbenzene	7.199	91	191636	20.13	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65569.D
 Acq On : 7 Mar 2020 5:50 pm
 Operator : PrashanS
 Sample : IC2712-20
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 09 10:05:30 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:29:00 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) m,p-xylene	7.314	106	148729	40.92	ug/L	96
91) o-xylene	7.671	91	149386	20.22	ug/L	99
92) styrene	7.681	104	122294	20.83	ug/L	99
93) butyl acrylate	7.592	56	36790	20.45	ug/L	98
94) n-amyl acetate	7.797	70	30046	21.01	ug/L	98
95) bromoform	7.860	173	37052	20.44	ug/L	99
96) isopropylbenzene	8.006	105	181967	20.44	ug/L	99
97) cis-1,4-dichloro-2-butene	8.054	88	21773	19.81	ug/L	97
100) bromobenzene	8.316	156	53215	20.15	ug/L	95
101) 1,1,2,2-tetrachloroethane	8.290	83	54997	20.33	ug/L	99
102) trans-1,4-dichloro-2-b...	8.326	53	14323	20.47	ug/L	95
103) 1,2,3-trichloropropane	8.352	110	17055	20.85	ug/L	97
104) n-propylbenzene	8.400	91	200926	20.48	ug/L	100
105) 2-chlorotoluene	8.494	126	46545	20.57	ug/L	99
106) 4-chlorotoluene	8.609	126	45956	21.05	ug/L	91
107) 1,3,5-trimethylbenzene	8.573	105	142303	20.38	ug/L	98
108) tert-butylbenzene	8.877	134	28599	20.81	ug/L	96
109) 1,2,4-trimethylbenzene	8.940	105	145322	20.83	ug/L	99
110) sec-butylbenzene	9.097	105	166308	20.58	ug/L	100
111) 1,3-dichlorobenzene	9.223	146	87970	20.47	ug/L	97
112) p-isopropyltoluene	9.244	119	144249	20.91	ug/L	98
113) 1,4-dichlorobenzene	9.317	146	90608	20.17	ug/L	98
114) 1,2-dichlorobenzene	9.674	146	85383	20.90	ug/L	99
115) benzyl chloride	9.422	91	90436	20.65	ug/L	100
116) n-butylbenzene	9.647	92	62730	21.24	ug/L	99
117) hexachloroethane	9.941	201	24520	20.03	ug/L	99
118) 1,2-dibromo-3-chloropr...	10.439	157	13787	20.86	ug/L	93
119) nitrobenzene	10.628	77	1814	18.68	ug/L	83
120) 1,3,5-trichlorobenzene	10.628	180	56316	20.23	ug/L	95
121) 1,2,4-trichlorobenzene	11.236	180	48140	21.49	ug/L	96
122) hexachlorobutadiene	11.372	225	19521	20.04	ug/L	95
123) naphthalene	11.483	128	123618	20.63	ug/L	99
124) 1,2,3-trichlorobenzene	11.692	180	40155	20.87	ug/L	97
125) 2-ethylhexyl acrylate	11.409	70	3614	3.52	ug/L	88
126) 2-methylnaphthalene	12.536	142	10437	9.78	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
Data File : 2V65569.D
Acq On : 7 Mar 2020 5:50 pm
Operator : PrashanS
Sample : IC2712-20
Misc : MS41182,V2V2712,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

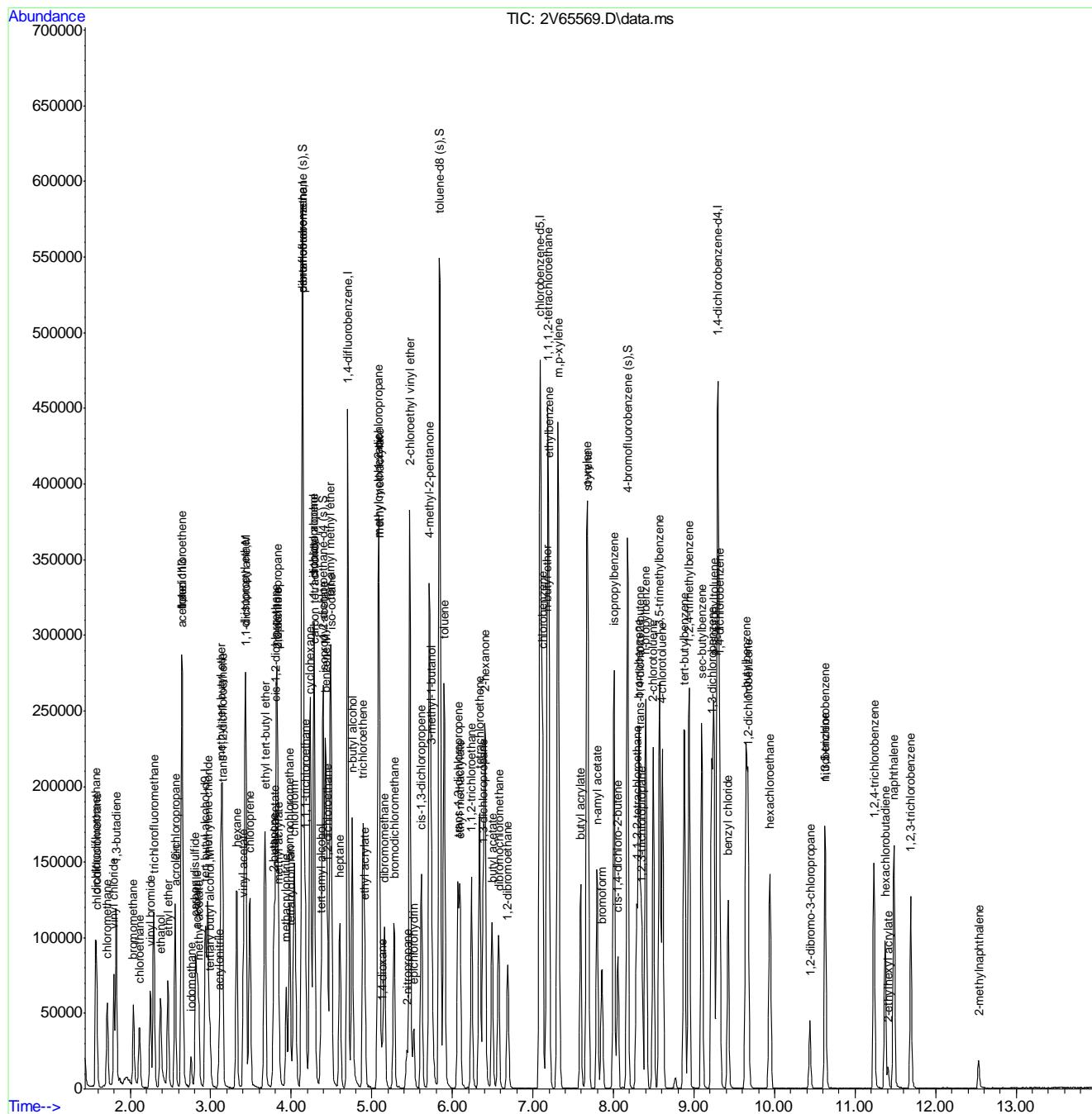
Quant Time: Mar 09 10:05:30 2020

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M

Quant Title : SW 846 Method 8260C, Rx1-624 (30m x 0.25mm x 1.4um)

Last Update : Mon Mar 09 08:29:00 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65570.D
 Acq On : 7 Mar 2020 6:16 pm
 Operator : PrashanS
 Sample : ICC2712-50
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 09 10:05:50 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:29:00 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	106178	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	239186	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.698	114	329603	50.00	ug/L	0.00
74) chlorobenzene-d5	7.094	117	276153	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.291	152	132927	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	107076	50.27	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.54%	
53) 1,2-dichloroethane-d4 (s)	4.394	65	100590	50.52	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	101.04%	
75) toluene-d8 (s)	5.841	98	347893	49.41	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	98.82%	
99) 4-bromofluorobenzene (s)	8.174	95	120954	49.37	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	98.74%	
Target Compounds						
					Qvalue	
2) ethanol	2.375	45	155558	4721.71	ug/L	100
3) tertiary butyl alcohol	2.989	59	96704	236.35	ug/L	100
4) 1,4-dioxane	5.128	88	44341	1242.57	ug/L	100
6) chlorodifluoromethane	1.584	51	136584	48.80	ug/L	100
7) dichlorodifluoromethane	1.573	85	133709	49.42	ug/L	100
8) chloromethane	1.715	50	110106	46.95	ug/L	100
9) vinyl chloride	1.799	62	132740	50.91	ug/L	100
10) bromomethane	2.040	96	65102	48.96	ug/L	100
11) chloroethane	2.113	64	64467	47.40	ug/L	100
12) trichlorofluoromethane	2.292	101	190501	49.05	ug/L	100
13) vinyl bromide	2.250	106	86742	48.31	ug/L	100
14) 1,3-butadiene	1.825	54	87941	49.52	ug/L	100
15) ethyl ether	2.470	74	54942	49.30	ug/L	100
16) 2-chloropropane	2.559	43	159128	48.55	ug/L	100
17) acrolein	2.564	56	15134	50.33	ug/L	100
18) freon 113	2.638	151	95463	50.67	ug/L	100
19) 1,1-dichloroethene	2.643	61	154904	50.52	ug/L	100
20) acetone	2.653	58	40097	204.12	ug/L	100
21) acetonitrile	2.832	41	139146	488.43	ug/L	100
22) iodomethane	2.758	142	80605	72.43	ug/L	100
23) carbon disulfide	2.811	76	227099	48.24	ug/L	100
24) methylene chloride	2.963	84	103290	47.83	ug/L	100
25) methyl acetate	2.853	43	92812	52.05	ug/L	100
26) methyl tert butyl ether	3.130	73	310449	50.29	ug/L	100
27) trans-1,2-dichloroethene	3.146	96	102607	49.66	ug/L	100
28) hexane	3.324	56	64805	51.36	ug/L	100
29) di-isopropyl ether	3.429	45	296836	49.38	ug/L	100
30) ethyl tert-butyl ether	3.670	59	310465	49.93	ug/L	100
31) 1,1-dichloroethane	3.434	63	174797	49.15	ug/L	100
32) chloroprene	3.487	53	147822	51.34	ug/L	100
33) acrylonitrile	3.104	53	40578	50.66	ug/L	100
34) vinyl acetate	3.408	86	21608	49.26	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65570.D
 Acq On : 7 Mar 2020 6:16 pm
 Operator : PrashanS
 Sample : ICC2712-50
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 09 10:05:50 2020

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M

Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)

QLast Update : Mon Mar 09 08:29:00 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl acetate	3.796	45	19169	51.62	ug/L	100
36) 2-butanone	3.786	72	59490	207.88	ug/L	100
37) 2,2-dichloropropane	3.822	77	159904	48.37	ug/L	100
38) cis-1,2-dichloroethene	3.817	96	118270	49.33	ug/L	100
39) propionitrile	3.828	54	148473	510.14	ug/L	100
40) methyl acrylate	3.843	85	19970	54.59	ug/L	100
41) bromochloromethane	3.980	128	63228	51.07	ug/L	100
42) tetrahydrofuran	3.990	71	15520	50.77	ug/L	100
43) chloroform	4.032	83	197412	48.30	ug/L	100
45) methacrylonitrile	3.938	67	45816	51.56	ug/L	100
46) 1,1,1-trichloroethane	4.174	97	186976	50.66	ug/L	100
47) cyclohexane	4.231	84	133547	49.55	ug/L	100
48) 1,1-dichloropropene	4.279	75	145476	49.91	ug/L	100
49) carbon tetrachloride	4.284	119	168008	50.73	ug/L	100
50) isobutyl alcohol	4.284	42	39347	522.43	ug/L	100
51) tert-amyl alcohol	4.373	55	30197	261.38	ug/L	100
54) n-butyl alcohol	4.756	56	220525	2618.84	ug/L	100
55) benzene	4.425	78	389495	48.60	ug/L	100
56) tert-amyl methyl ether	4.488	73	320946	48.94	ug/L	100
57) iso-octane	4.494	57	221965	48.76	ug/L	100
58) heptane	4.604	57	50186	48.81	ug/L	100
59) isopropyl acetate	4.399	87	27829	49.95	ug/L	100
60) 1,2-dichloroethane	4.446	62	154751	47.89	ug/L	100
61) trichloroethene	4.892	95	115688	50.39	ug/L	100
62) ethyl acrylate	4.913	55	150342	50.06	ug/L	100
63) 2-nitropropane	5.432	41	30656	48.93	ug/L	100
64) 2-chloroethyl vinyl ether	5.474	63	383739	257.91	ug/L	100
65) methyl methacrylate	5.091	100	33999	51.51	ug/L	100
66) 1,2-dichloropropane	5.086	63	101019	50.05	ug/L	100
67) methylcyclohexane	5.081	83	159305	50.45	ug/L	100
68) dibromomethane	5.154	93	80090	51.00	ug/L	100
69) bromodichloromethane	5.275	83	157241	50.97	ug/L	100
70) epichlorohydrin	5.521	57	65878	256.20	ug/L	100
71) cis-1,3-dichloropropene	5.616	75	171836	51.53	ug/L	100
72) 4-methyl-2-pentanone	5.715	58	189071	204.97	ug/L	100
73) 3-methyl-1-butanol	5.736	70	88481	1050.93	ug/L	100
76) toluene	5.899	92	255938	48.49	ug/L	100
77) ethyl methacrylate	6.093	69	141928	51.13	ug/L	100
78) trans-1,3-dichloropropene	6.066	75	161670	50.96	ug/L	100
79) 1,1,2-trichloroethane	6.240	83	85526	48.81	ug/L	100
80) 2-hexanone	6.402	58	190159	207.89	ug/L	100
81) tetrachloroethene	6.339	164	104971	50.20	ug/L	100
82) 1,3-dichloropropane	6.381	76	157119	49.99	ug/L	100
83) butyl acetate	6.496	56	73253	50.64	ug/L	100
84) dibromochloromethane	6.575	129	135374	51.19	ug/L	100
85) 1,2-dibromoethane	6.685	107	130674	50.18	ug/L	100
86) n-butyl ether	7.173	57	389812	50.50	ug/L	100
87) chlorobenzene	7.120	112	300215	48.13	ug/L	100
88) 1,1,1,2-tetrachloroethane	7.189	131	118794	50.19	ug/L	100
89) ethylbenzene	7.194	91	486595	49.10	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65570.D
 Acq On : 7 Mar 2020 6:16 pm
 Operator : PrashanS
 Sample : ICC2712-50
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 09 10:05:50 2020

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M

Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)

QLast Update : Mon Mar 09 08:29:00 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) m,p-xylene	7.314	106	380762	100.61	ug/L	100
91) o-xylene	7.666	91	385191	50.07	ug/L	100
92) styrene	7.681	104	316373	51.75	ug/L	100
93) butyl acrylate	7.592	56	96220	51.36	ug/L	100
94) n-amyl acetate	7.797	70	77517	52.05	ug/L	100
95) bromoform	7.854	173	99596	52.78	ug/L	100
96) isopropylbenzene	8.006	105	471933	50.92	ug/L	100
97) cis-1,4-dichloro-2-butene	8.054	88	59530	52.03	ug/L	100
100) bromobenzene	8.316	156	137845	48.03	ug/L	100
101) 1,1,2,2-tetrachloroethane	8.290	83	143845	48.93	ug/L	100
102) trans-1,4-dichloro-2-b...	8.326	53	38803	51.03	ug/L	100
103) 1,2,3-trichloropropane	8.347	110	43562	49.01	ug/L	100
104) n-propylbenzene	8.400	91	519861	48.75	ug/L	100
105) 2-chlorotoluene	8.494	126	118087	48.01	ug/L	100
106) 4-chlorotoluene	8.609	126	119381	50.31	ug/L	100
107) 1,3,5-trimethylbenzene	8.573	105	375850	49.54	ug/L	100
108) tert-butylbenzene	8.882	134	75885	50.81	ug/L	100
109) 1,2,4-trimethylbenzene	8.940	105	376538	49.67	ug/L	100
110) sec-butylbenzene	9.097	105	436152	49.67	ug/L	100
111) 1,3-dichlorobenzene	9.218	146	230708	49.40	ug/L	100
112) p-isopropyltoluene	9.244	119	378319	50.47	ug/L	100
113) 1,4-dichlorobenzene	9.317	146	234268	48.00	ug/L	100
114) 1,2-dichlorobenzene	9.668	146	220379	49.64	ug/L	100
115) benzyl chloride	9.422	91	249561	52.43	ug/L	100
116) n-butylbenzene	9.647	92	164715	51.32	ug/L	100
117) hexachloroethane	9.941	201	66839	50.25	ug/L	100
118) 1,2-dibromo-3-chloropr...	10.439	157	36828	51.27	ug/L	100
119) nitrobenzene	10.628	77	5655	53.57	ug/L	100
120) 1,3,5-trichlorobenzene	10.628	180	147799	48.85	ug/L	100
121) 1,2,4-trichlorobenzene	11.236	180	123814	50.86	ug/L	100
122) hexachlorobutadiene	11.372	225	51022	48.19	ug/L	100
123) naphthalene	11.483	128	335933	51.58	ug/L	100
124) 1,2,3-trichlorobenzene	11.692	180	104781	50.12	ug/L	100
125) 2-ethylhexyl acrylate	11.409	70	10609	9.50	ug/L	100
126) 2-methylnaphthalene	12.536	142	32009	27.60	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
Data File : 2V65570.D
Acq On : 7 Mar 2020 6:16 pm
Operator : Prashans
Sample : ICC2712-50
Misc : MS41182,V2V2712,5,,,1
ALS Vial : 9 Sample Multiplier: 1

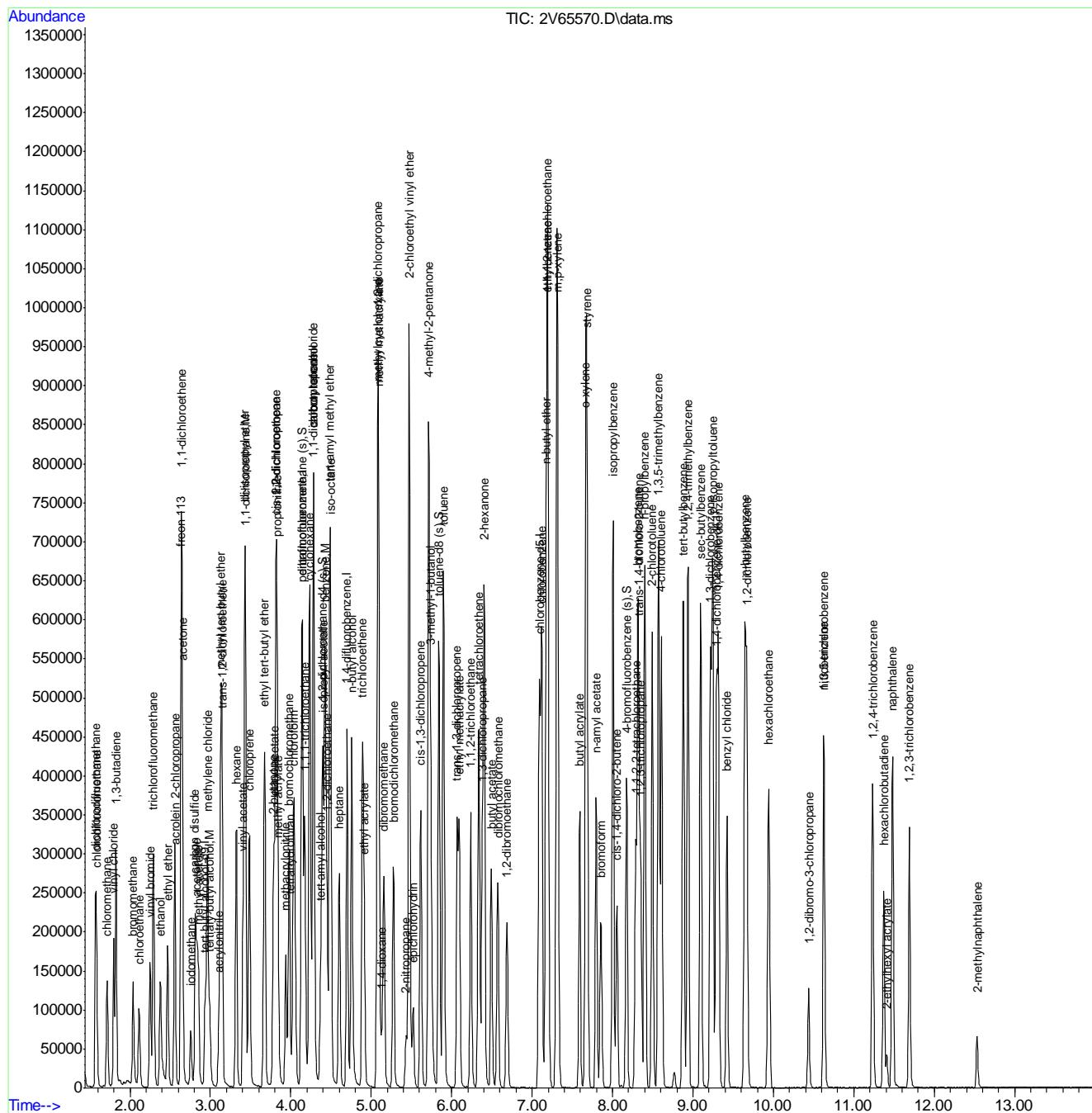
Quant Time: Mar 09 10:05:50 2020

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M

Quant Title : SW 846 Method 8260C, Rx1-624 (30m x 0.25mm x 1.4um)

Last Update : Mon Mar 09 08:29:00 2020

Please update : Mon Mar 09 08:29:00
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65571.D
 Acq On : 7 Mar 2020 6:42 pm
 Operator : PrashanS
 Sample : IC2712-100
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 09 10:06:14 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:29:00 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	114093	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	249244	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.698	114	346829	50.00	ug/L	0.00
74) chlorobenzene-d5	7.089	117	291898	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.296	152	140618	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	110104	49.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 99.20%		
53) 1,2-dichloroethane-d4 (s)	4.394	65	103830	49.56	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 99.12%		
75) toluene-d8 (s)	5.841	98	363857	48.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 97.78%		
99) 4-bromofluorobenzene (s)	8.174	95	128049	49.41	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 98.82%		
Target Compounds						
				Qvalue		
2) ethanol	2.380	45	312192	8818.69	ug/L	98
3) tertiary butyl alcohol	2.994	59	201433	458.17	ug/L	97
4) 1,4-dioxane	5.133	88	94182	2456.17	ug/L	96
6) chlorodifluoromethane	1.583	51	297651	102.05	ug/L	100
7) dichlorodifluoromethane	1.568	85	291263	103.30	ug/L	99
8) chloromethane	1.715	50	233269	95.46	ug/L	98
9) vinyl chloride	1.798	62	284904	104.87	ug/L	99
10) bromomethane	2.034	96	161563	116.60	ug/L	99
11) chloroethane	2.113	64	140852	99.38	ug/L	96
12) trichlorofluoromethane	2.291	101	418705	103.45	ug/L	99
13) vinyl bromide	2.249	106	191095	102.14	ug/L	98
14) 1,3-butadiene	1.825	54	186307	100.68	ug/L	99
15) ethyl ether	2.470	74	120893	104.09	ug/L	99
16) 2-chloropropane	2.553	43	341501	99.99	ug/L	99
17) acrolein	2.564	56	34191	109.12	ug/L	99
18) freon 113	2.637	151	207240	105.56	ug/L	98
19) 1,1-dichloroethene	2.643	61	331636	103.80	ug/L	100
20) acetone	2.653	58	86086	420.54	ug/L	96
21) acetonitrile	2.831	41	299793	1009.88	ug/L	97
22) iodomethane	2.753	142	202993	175.03	ug/L	99
23) carbon disulfide	2.810	76	491631	100.22	ug/L	100
24) methylene chloride	2.962	84	223778	99.45	ug/L	99
25) methyl acetate	2.852	43	184662	99.37	ug/L	100
26) methyl tert butyl ether	3.130	73	668668	103.95	ug/L	99
27) trans-1,2-dichloroethene	3.141	96	220686	102.51	ug/L	97
28) hexane	3.319	56	138607	105.41	ug/L	97
29) di-isopropyl ether	3.429	45	632844	101.03	ug/L	98
30) ethyl tert-butyl ether	3.670	59	666196	102.82	ug/L	99
31) 1,1-dichloroethane	3.434	63	373202	100.70	ug/L	99
32) chloroprene	3.481	53	314968	104.98	ug/L	98
33) acrylonitrile	3.099	53	88622	106.18	ug/L	97
34) vinyl acetate	3.408	86	49504	108.31	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65571.D
 Acq On : 7 Mar 2020 6:42 pm
 Operator : PrashanS
 Sample : IC2712-100
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 09 10:06:14 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:29:00 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl acetate	3.796	45	41829	108.10	ug/L	93
36) 2-butanone	3.786	72	129841	435.40	ug/L	99
37) 2,2-dichloropropane	3.822	77	347930	101.00	ug/L	99
38) cis-1,2-dichloroethene	3.812	96	255360	102.22	ug/L	97
39) propionitrile	3.828	54	318436	1049.97	ug/L	96
40) methyl acrylate	3.843	85	42726	112.08	ug/L	95
41) bromochloromethane	3.980	128	134001	103.86	ug/L	96
42) tetrahydrofuran	3.990	71	33933	106.52	ug/L	97
43) chloroform	4.032	83	428801	100.69	ug/L	99
45) methacrylonitrile	3.938	67	100395	108.43	ug/L	98
46) 1,1,1-trichloroethane	4.174	97	407033	105.84	ug/L	99
47) cyclohexane	4.231	84	292015	103.97	ug/L	100
48) 1,1-dichloropropene	4.278	75	316684	104.27	ug/L	99
49) carbon tetrachloride	4.284	119	371843	107.75	ug/L	100
50) isobutyl alcohol	4.284	42	82786	1054.83	ug/L	96
51) tert-amyl alcohol	4.378	55	64770	538.01	ug/L	93
54) n-butyl alcohol	4.761	56	478597	5401.27	ug/L	99
55) benzene	4.425	78	849859	100.77	ug/L	100
56) tert-amyl methyl ether	4.488	73	704450	102.08	ug/L	99
57) iso-octane	4.493	57	479809	100.17	ug/L	99
58) heptane	4.604	57	111828	103.35	ug/L	98
59) isopropyl acetate	4.399	87	60956	103.98	ug/L	99
60) 1,2-dichloroethane	4.446	62	334125	98.26	ug/L	99
61) trichloroethene	4.892	95	252341	104.44	ug/L	98
62) ethyl acrylate	4.913	55	333266	105.45	ug/L	99
63) 2-nitropropane	5.437	41	75330	114.26	ug/L	96
64) 2-chloroethyl vinyl ether	5.474	63	846653	540.78	ug/L	99
65) methyl methacrylate	5.091	100	75218	108.30	ug/L	91
66) 1,2-dichloropropane	5.086	63	221285	104.19	ug/L	98
67) methylcyclohexane	5.081	83	346275	104.21	ug/L	99
68) dibromomethane	5.154	93	173977	105.28	ug/L	96
69) bromodichloromethane	5.275	83	346427	106.73	ug/L	99
70) epichlorohydrin	5.521	57	142829	527.87	ug/L	100
71) cis-1,3-dichloropropene	5.615	75	383435	109.26	ug/L	98
72) 4-methyl-2-pentanone	5.715	58	411780	424.24	ug/L	99
73) 3-methyl-1-butanol	5.741	70	195107	2202.29	ug/L	97
76) toluene	5.899	92	564915	101.25	ug/L	96
77) ethyl methacrylate	6.093	69	317875	108.34	ug/L	99
78) trans-1,3-dichloropropene	6.066	75	362879	108.21	ug/L	99
79) 1,1,2-trichloroethane	6.239	83	189787	102.47	ug/L	99
80) 2-hexanone	6.407	58	414636	428.85	ug/L	98
81) tetrachloroethene	6.339	164	233476	105.63	ug/L	97
82) 1,3-dichloropropane	6.381	76	344811	103.79	ug/L	98
83) butyl acetate	6.491	56	166971	109.21	ug/L	97
84) dibromochloromethane	6.575	129	302483	108.21	ug/L	99
85) 1,2-dibromoethane	6.685	107	288245	104.73	ug/L	99
86) n-butyl ether	7.173	57	865768	106.10	ug/L	99
87) chlorobenzene	7.115	112	668137	101.33	ug/L	98
88) 1,1,1,2-tetrachloroethane	7.188	131	267276	106.83	ug/L	98
89) ethylbenzene	7.194	91	1077333	102.84	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65571.D
 Acq On : 7 Mar 2020 6:42 pm
 Operator : PrashanS
 Sample : IC2712-100
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 09 10:06:14 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 08:29:00 2020
 Response via : Initial Calibration

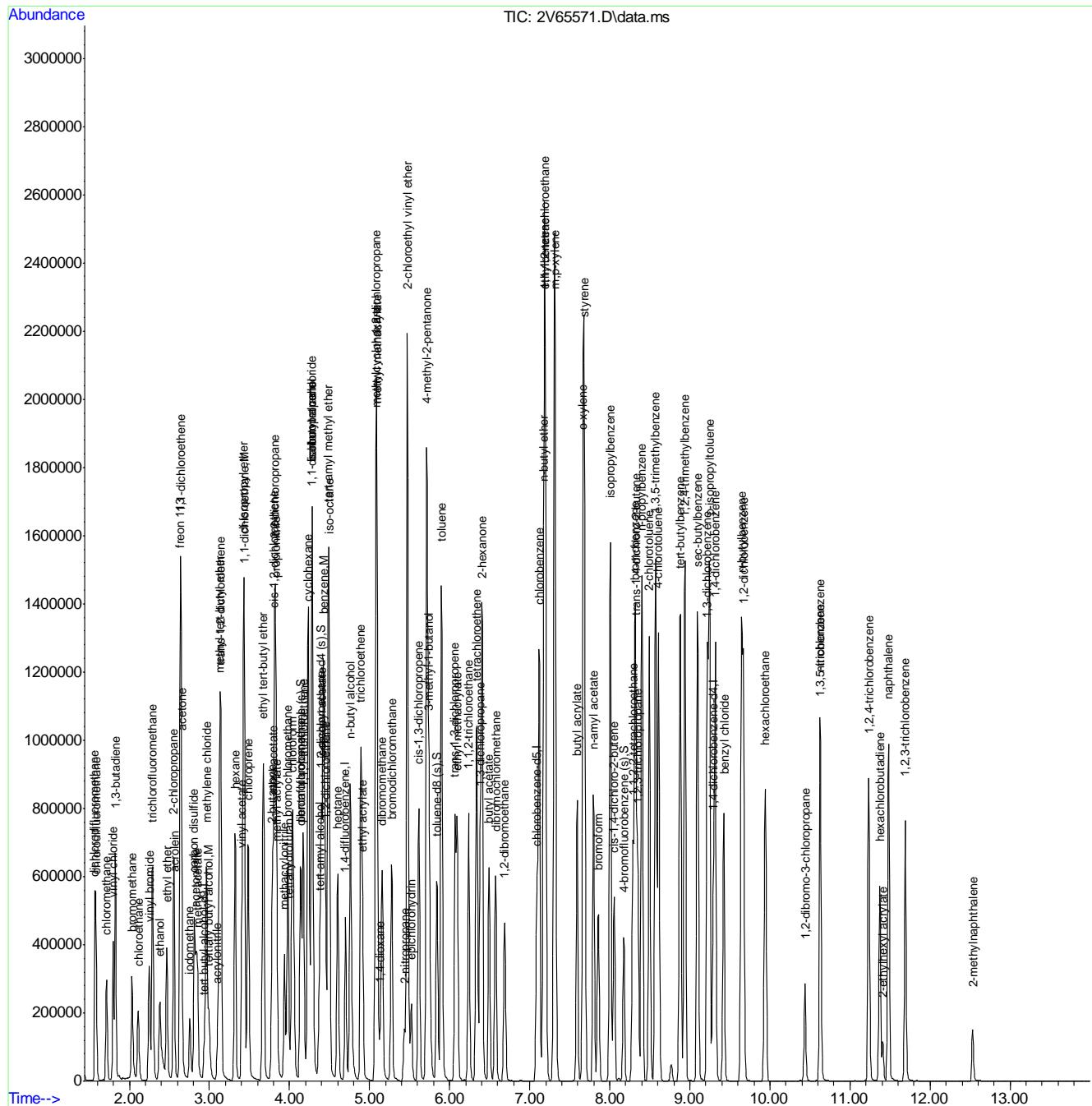
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) m,p-xylene	7.314	106	847811	211.94	ug/L	99
91) o-xylene	7.665	91	859793	105.73	ug/L	99
92) styrene	7.681	104	708953	109.72	ug/L	100
93) butyl acrylate	7.592	56	220904	111.56	ug/L	98
94) n-amyl acetate	7.797	70	174562	110.89	ug/L	95
95) bromoform	7.859	173	225168	112.88	ug/L	98
96) isopropylbenzene	8.006	105	1040357	106.19	ug/L	100
97) cis-1,4-dichloro-2-butene	8.053	88	134825	111.49	ug/L	98
100) bromobenzene	8.316	156	307255	101.21	ug/L	97
101) 1,1,2,2-tetrachloroethane	8.289	83	315346	101.41	ug/L	98
102) trans-1,4-dichloro-2-b...	8.326	53	87128	108.31	ug/L	97
103) 1,2,3-trichloropropane	8.347	110	96233	102.34	ug/L	98
104) n-propylbenzene	8.399	91	1155817	102.46	ug/L	100
105) 2-chlorotoluene	8.494	126	264271	101.57	ug/L	99
106) 4-chlorotoluene	8.609	126	264099	105.21	ug/L	94
107) 1,3,5-trimethylbenzene	8.572	105	832427	103.72	ug/L	99
108) tert-butylbenzene	8.882	134	167143	105.78	ug/L	97
109) 1,2,4-trimethylbenzene	8.939	105	840977	104.87	ug/L	99
110) sec-butylbenzene	9.097	105	976666	105.14	ug/L	99
111) 1,3-dichlorobenzene	9.217	146	518023	104.85	ug/L	99
112) p-isopropyltoluene	9.244	119	842349	106.22	ug/L	100
113) 1,4-dichlorobenzene	9.317	146	522489	101.19	ug/L	98
114) 1,2-dichlorobenzene	9.668	146	492672	104.90	ug/L	99
115) benzyl chloride	9.427	91	567191	112.65	ug/L	99
116) n-butylbenzene	9.647	92	371922	109.54	ug/L	99
117) hexachloroethane	9.941	201	156298	111.09	ug/L	98
118) 1,2-dibromo-3-chloropr...	10.439	157	85032	111.91	ug/L	94
119) nitrobenzene	10.628	77	14716	131.79	ug/L	95
120) 1,3,5-trichlorobenzene	10.633	180	336558	105.15	ug/L	99
121) 1,2,4-trichlorobenzene	11.236	180	287233	111.53	ug/L	98
122) hexachlorobutadiene	11.372	225	113888	101.68	ug/L	98
123) naphthalene	11.482	128	768492	111.55	ug/L	100
124) 1,2,3-trichlorobenzene	11.692	180	238239	107.72	ug/L	99
125) 2-ethylhexyl acrylate	11.409	70	26504	22.43	ug/L	95
126) 2-methylnaphthalene	12.536	142	72056	58.73	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
Data File : 2V65571.D
Acq On : 7 Mar 2020 6:42 pm
Operator : PrashanS
Sample : IC2712-100
Misc : MS41182,V2V2712,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 09 10:06:14 2020
Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
QLast Update : Mon Mar 09 08:29:00 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65572.D
 Acq On : 7 Mar 2020 7:07 pm
 Operator : PrashanS
 Sample : IC2712-200
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 09 10:12:52 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:10:25 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.942	65	103026	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	249505	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.698	114	347927	50.00	ug/L	0.00
74) chlorobenzene-d5	7.089	117	294357	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.296	152	138655	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	110891	49.91	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 99.82%		
53) 1,2-dichloroethane-d4 (s)	4.394	65	101320	48.21	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 96.42%		
75) toluene-d8 (s)	5.846	98	369041	49.18	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 98.36%		
99) 4-bromofluorobenzene (s)	8.174	95	127173	49.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 99.54%		
Target Compounds						
				Qvalue		
3) tertiary butyl alcohol	2.994	59	371157	934.90	ug/L	95
4) 1,4-dioxane	5.133	88	173735	5017.53	ug/L	99
6) chlorodifluoromethane	1.584	51	577345	197.74	ug/L	98
7) dichlorodifluoromethane	1.568	85	568247	201.33	ug/L	99
8) chloromethane	1.715	50	450295	184.07	ug/L	99
9) vinyl chloride	1.799	62	540075	198.58	ug/L	100
10) bromomethane	2.029	96	315496	231.42	ug/L	100
11) chloroethane	2.103	64	282381	199.03	ug/L	97
12) trichlorofluoromethane	2.286	101	814013	200.91	ug/L	99
13) vinyl bromide	2.244	106	375414	206.73	ug/L	98
14) 1,3-butadiene	1.825	54	351958	189.99	ug/L	99
15) ethyl ether	2.465	74	235192	202.30	ug/L	92
16) 2-chloropropane	2.554	43	660145	193.09	ug/L	100
17) acrolein	2.564	56	69052	216.84	ug/L	95
18) freon 113	2.638	151	400452	203.76	ug/L	96
19) 1,1-dichloroethene	2.638	61	638360	204.99	ug/L	98
20) acetone	2.653	58	163161	796.23	ug/L	94
21) acetonitrile	2.837	41	573708	1930.56	ug/L	97
22) iodomethane	2.753	142	422555	363.97	ug/L	97
23) carbon disulfide	2.811	76	991373	201.89	ug/L	100
24) methylene chloride	2.963	84	443955	197.10	ug/L	97
25) methyl acetate	2.853	43	352096	189.84	ug/L	99
26) methyl tert butyl ether	3.125	73	1317842	204.65	ug/L	99
27) trans-1,2-dichloroethene	3.141	96	439938	209.13	ug/L	97
28) hexane	3.319	56	274464	208.52	ug/L	98
29) di-isopropyl ether	3.429	45	1240647	197.86	ug/L	96
30) ethyl tert-butyl ether	3.670	59	1323157	204.00	ug/L	99
31) 1,1-dichloroethane	3.429	63	741621	203.88	ug/L	99
32) chloroprene	3.482	53	615979	205.09	ug/L	99
33) acrylonitrile	3.104	53	171570	205.35	ug/L	98
34) vinyl acetate	3.408	86	96258	210.37	ug/L	98
35) ethyl acetate	3.796	45	81737	211.01	ug/L #	78

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65572.D
 Acq On : 7 Mar 2020 7:07 pm
 Operator : PrashanS
 Sample : IC2712-200
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 09 10:12:52 2020

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M

Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)

QLast Update : Mon Mar 09 10:10:25 2020

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) 2-butanone	3.786	72	253217	848.23	ug/L	100
37) 2,2-dichloropropane	3.822	77	688909	199.77	ug/L	99
38) cis-1,2-dichloroethene	3.812	96	506054	202.36	ug/L	99
39) propionitrile	3.833	54	606779	1998.62	ug/L	# 57
40) methyl acrylate	3.843	85	83587	209.51	ug/L	# 87
41) bromochloromethane	3.980	128	262015	208.06	ug/L	98
42) tetrahydrofuran	3.990	71	65268	201.94	ug/L	98
43) chloroform	4.032	83	847853	198.28	ug/L	98
45) methacrylonitrile	3.938	67	196725	216.46	ug/L	98
46) 1,1,1-trichloroethane	4.174	97	801827	208.27	ug/L	98
47) cyclohexane	4.231	84	573044	201.51	ug/L	97
48) 1,1-dichloropropene	4.279	75	616513	202.77	ug/L	97
49) carbon tetrachloride	4.284	119	728217	210.80	ug/L	98
50) isobutyl alcohol	4.289	42	154122	1961.71	ug/L	# 92
51) tert-amyl alcohol	4.378	55	116919	970.17	ug/L	90
54) n-butyl alcohol	4.766	56	879890	10085.41	ug/L	99
55) benzene	4.425	78	1672963	197.74	ug/L	99
56) tert-amyl methyl ether	4.488	73	1390019	200.79	ug/L	99
57) iso-octane	4.494	57	960708	199.86	ug/L	99
58) heptane	4.604	57	218786	201.56	ug/L	98
59) isopropyl acetate	4.399	87	117988	200.62	ug/L	97
60) 1,2-dichloroethane	4.446	62	659303	193.27	ug/L	99
61) trichloroethene	4.892	95	499611	211.55	ug/L	98
62) ethyl acrylate	4.913	55	644978	206.17	ug/L	99
63) 2-nitropropane	5.437	41	149462	225.98	ug/L	95
64) 2-chloroethyl vinyl ether	5.474	63	1652460	1066.29	ug/L	99
65) methyl methacrylate	5.091	100	145126	208.29	ug/L	94
66) 1,2-dichloropropane	5.086	63	433613	203.52	ug/L	97
67) methylcyclohexane	5.081	83	689775	206.47	ug/L	98
68) dibromomethane	5.154	93	343216	207.03	ug/L	97
69) bromodichloromethane	5.275	83	688780	214.80	ug/L	99
70) epichlorohydrin	5.526	57	270827	997.77	ug/L	92
71) cis-1,3-dichloropropene	5.616	75	759659	215.79	ug/L	99
72) 4-methyl-2-pentanone	5.715	58	785179	835.90	ug/L	99
73) 3-methyl-1-butanol	5.741	70	362904	4199.97	ug/L	98
76) toluene	5.899	92	1121269	199.29	ug/L	97
77) ethyl methacrylate	6.093	69	620508	209.71	ug/L	99
78) trans-1,3-dichloropropene	6.072	75	724134	214.13	ug/L	98
79) 1,1,2-trichloroethane	6.239	83	375661	205.15	ug/L	97
80) 2-hexanone	6.407	58	787707	830.82	ug/L	98
81) tetrachloroethene	6.339	164	460707	213.67	ug/L	97
82) 1,3-dichloropropane	6.381	76	681154	203.32	ug/L	99
83) butyl acetate	6.491	56	319271	207.07	ug/L	99
84) dibromochloromethane	6.575	129	608045	220.01	ug/L	100
85) 1,2-dibromoethane	6.685	107	567218	212.05	ug/L	99
86) n-butyl ether	7.173	57	1704633	203.94	ug/L	100
87) chlorobenzene	7.120	112	1321310	198.72	ug/L	99
88) 1,1,1,2-tetrachloroethane	7.189	131	533349	218.95	ug/L	99
89) ethylbenzene	7.199	91	2123883	201.06	ug/L	98
90) m,p-xylene	7.314	106	1687553	418.35	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65572.D
 Acq On : 7 Mar 2020 7:07 pm
 Operator : PrashanS
 Sample : IC2712-200
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 09 10:12:52 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:10:25 2020
 Response via : Initial Calibration

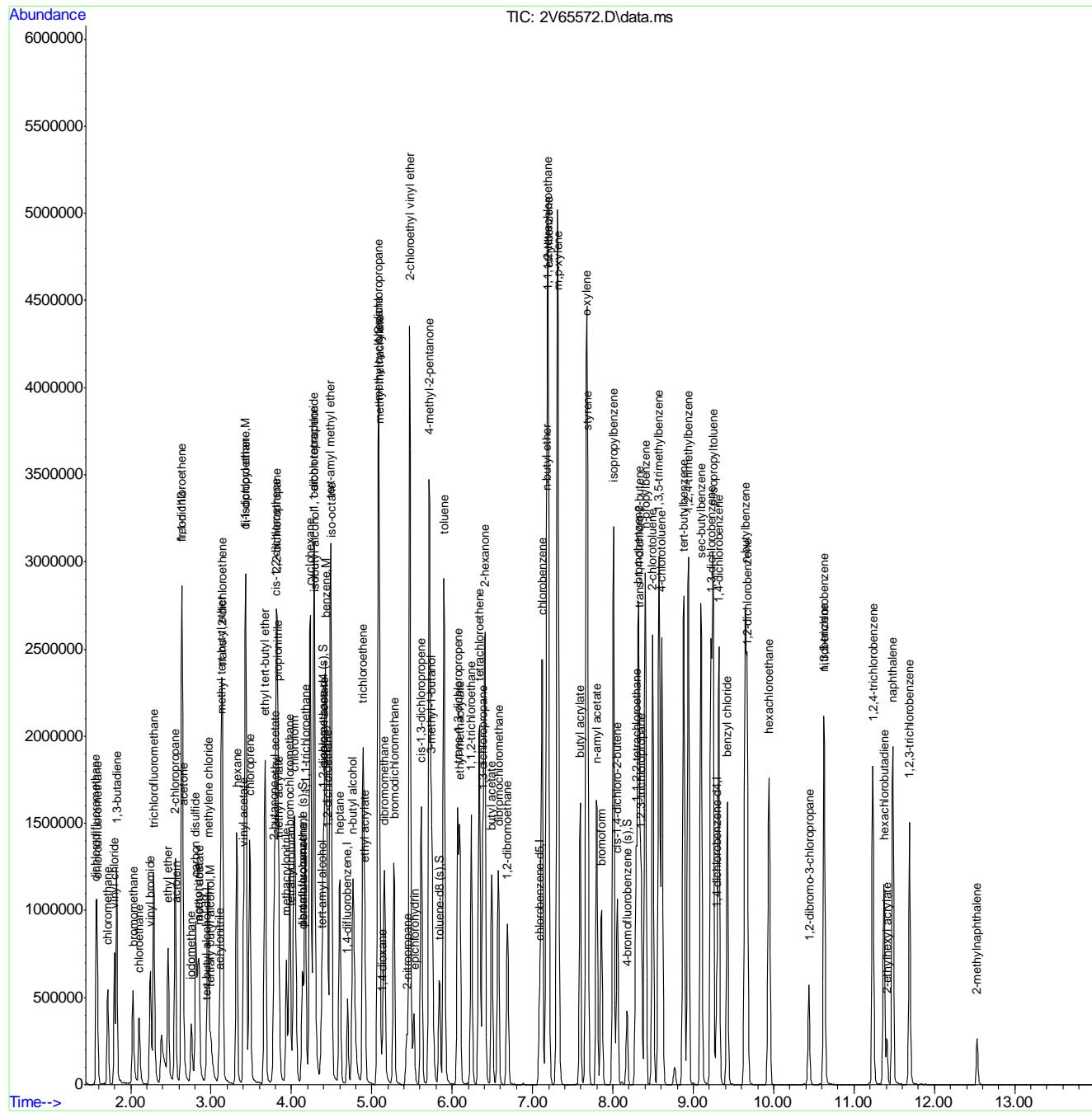
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) o-xylene	7.671	91	1712946	208.89	ug/L	99
92) styrene	7.687	104	1416964	217.46	ug/L	98
93) butyl acrylate	7.592	56	434301	222.73	ug/L	97
94) n-amyl acetate	7.802	70	346728	218.42	ug/L	95
95) bromoform	7.860	173	460220	228.79	ug/L	99
96) isopropylbenzene	8.006	105	2076883	210.22	ug/L	100
97) cis-1,4-dichloro-2-butene	8.054	88	269373	227.83	ug/L	98
100) bromobenzene	8.316	156	606346	202.56	ug/L	98
101) 1,1,2,2-tetrachloroethane	8.290	83	617465	201.37	ug/L	99
102) trans-1,4-dichloro-2-b...	8.326	53	174028	219.39	ug/L	96
103) 1,2,3-trichloropropane	8.352	110	187279	201.98	ug/L	100
104) n-propylbenzene	8.405	91	2280430	205.01	ug/L	98
105) 2-chlorotoluene	8.494	126	525706	204.92	ug/L	97
106) 4-chlorotoluene	8.609	126	524427	211.88	ug/L	94
107) 1,3,5-trimethylbenzene	8.573	105	1656232	209.29	ug/L	100
108) tert-butylbenzene	8.882	134	335363	215.25	ug/L	98
109) 1,2,4-trimethylbenzene	8.940	105	1659765	209.91	ug/L	100
110) sec-butylbenzene	9.097	105	1943598	212.20	ug/L	99
111) 1,3-dichlorobenzene	9.223	146	1028866	211.19	ug/L	99
112) p-isopropyltoluene	9.244	119	1666879	218.07	ug/L	100
113) 1,4-dichlorobenzene	9.317	146	1044268	205.11	ug/L	99
114) 1,2-dichlorobenzene	9.674	146	988840	213.53	ug/L	99
115) benzyl chloride	9.422	91	1146997	234.86	ug/L	100
116) n-butylbenzene	9.647	92	753861	225.18	ug/L	99
117) hexachloroethane	9.941	201	320995	231.38	ug/L	98
118) 1,2-dibromo-3-chloropr...	10.439	157	171054	235.08	ug/L	94
119) nitrobenzene	10.628	77	32981	272.36	ug/L	92
120) 1,3,5-trichlorobenzene	10.628	180	680467	221.71	ug/L	99
121) 1,2,4-trichlorobenzene	11.236	180	583058	222.26	ug/L	99
122) hexachlorobutadiene	11.372	225	235160	212.93	ug/L	98
123) naphthalene	11.483	128	1506455	221.76	ug/L	100
124) 1,2,3-trichlorobenzene	11.692	180	469005	215.07	ug/L	97
125) 2-ethylhexyl acrylate	11.409	70	59949	42.36	ug/L	91
126) 2-methylnaphthalene	12.531	142	124311	105.18	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65572.D
 Acq On : 7 Mar 2020 7:07 pm
 Operator : PrashanS
 Sample : IC2712-200
 Misc : MS41182, V2V2712, 5, , , 1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 09 10:12:52 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:10:25 2020
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65575.D
 Acq On : 7 Mar 2020 8:23 pm
 Operator : PrashanS
 Sample : ICV2712-50
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 09 10:13:34 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	108653	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	246264	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.703	114	343554	50.00	ug/L	0.00
74) chlorobenzene-d5	7.089	117	288871	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.291	152	138530	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	110716	50.48	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.96%	
53) 1,2-dichloroethane-d4 (s)	4.394	65	105868	51.01	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	102.02%	
75) toluene-d8 (s)	5.841	98	358929	48.74	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	97.48%	
99) 4-bromofluorobenzene (s)	8.174	95	126773	49.66	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	99.32%	
Target Compounds						
				Qvalue		
2) ethanol	2.375	45	155922	4624.95	ug/L	99
3) tertiary butyl alcohol	2.989	59	94763	226.33	ug/L	97
4) 1,4-dioxane	5.128	88	45788	1253.89	ug/L	97
7) dichlorodifluoromethane	1.573	85	157705	56.61	ug/L	99
8) chloromethane	1.715	50	120967	50.10	ug/L	99
9) vinyl chloride	1.798	62	131593	49.02	ug/L	100
10) bromomethane	2.040	96	88556	64.68	ug/L	98
11) chloroethane	2.113	64	59588	42.55	ug/L	98
12) trichlorofluoromethane	2.291	101	205524	51.39	ug/L	98
13) vinyl bromide	2.249	106	99800	55.68	ug/L	99
14) 1,3-butadiene	1.825	54	90030	49.24	ug/L	97
15) ethyl ether	2.470	74	57178	49.83	ug/L	94
16) 2-chloropropane	2.559	43	150018	44.46	ug/L	99
17) acrolein	2.564	56	16497	52.49	ug/L	88
18) freon 113	2.643	151	99053	51.06	ug/L	96
19) 1,1-dichloroethene	2.643	61	147050	47.84	ug/L	98
20) acetone	2.653	58	38943	192.54	ug/L	93
22) iodomethane	2.758	142	82603	72.09	ug/L	98
23) carbon disulfide	2.816	76	272305	56.18	ug/L	99
24) methylene chloride	2.962	84	107295	48.26	ug/L	98
25) methyl acetate	2.852	43	86094	47.03	ug/L	98
26) methyl tert butyl ether	3.130	73	634315	99.80	ug/L	99
27) trans-1,2-dichloroethene	3.146	96	104838	50.49	ug/L	99
28) hexane	3.324	56	65440	50.37	ug/L	97
29) di-isopropyl ether	3.429	45	297866	48.13	ug/L	99
30) ethyl tert-butyl ether	3.676	59	306398	47.86	ug/L	100
31) 1,1-dichloroethane	3.434	63	184716	51.45	ug/L	99
32) chloroprene	3.487	53	157629	53.17	ug/L	97
34) vinyl acetate	3.408	86	22055	48.84	ug/L	# 92
35) ethyl acetate	3.796	45	19031	49.78	ug/L	97
36) 2-butanone	3.786	72	60584	205.62	ug/L	93
37) 2,2-dichloropropane	3.828	77	161113	47.33	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65575.D
 Acq On : 7 Mar 2020 8:23 pm
 Operator : PrashanS
 Sample : ICV2712-50
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 09 10:13:34 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) cis-1,2-dichloroethene	3.812	96	119535	48.43	ug/L	97
39) propionitrile	3.828	54	174303	581.68	ug/L	95
40) methyl acrylate	3.843	85	20457	51.95	ug/L	100
41) bromochloromethane	3.980	128	67152	54.02	ug/L	96
42) tetrahydrofuran	3.990	71	15880	49.78	ug/L	93
43) chloroform	4.032	83	208313	49.36	ug/L	98
45) methacrylonitrile	3.938	67	48029	53.54	ug/L	97
46) 1,1,1-trichloroethane	4.174	97	190031	50.01	ug/L	98
47) cyclohexane	4.231	84	142323	50.71	ug/L	98
48) 1,1-dichloropropene	4.278	75	151477	50.48	ug/L	98
49) carbon tetrachloride	4.289	119	174652	51.22	ug/L	98
50) isobutyl alcohol	4.284	42	41150	530.66	ug/L	94
51) tert-amyl alcohol	4.373	55	29779	250.35	ug/L	96
54) n-butyl alcohol	4.756	56	216950	2518.36	ug/L	99
55) benzene	4.425	78	408913	48.95	ug/L	99
56) tert-amyl methyl ether	4.488	73	312247	45.68	ug/L	99
57) iso-octane	4.493	57	230393	48.54	ug/L	100
58) heptane	4.604	57	50053	46.70	ug/L	97
59) isopropyl acetate	4.399	87	27664	47.64	ug/L	95
60) 1,2-dichloroethane	4.446	62	161750	48.02	ug/L	99
61) trichloroethene	4.892	95	120116	51.51	ug/L	97
62) ethyl acrylate	4.913	55	151282	48.97	ug/L	99
63) 2-nitropropane	5.432	41	33625	51.49	ug/L	97
64) 2-chloroethyl vinyl ether	5.474	63	406457	265.61	ug/L	100
65) methyl methacrylate	5.091	100	34981	50.85	ug/L	97
66) 1,2-dichloropropane	5.086	63	107615	51.15	ug/L	99
67) methylcyclohexane	5.081	83	164053	49.73	ug/L	98
68) dibromomethane	5.154	93	83502	51.01	ug/L	98
69) bromodichloromethane	5.275	83	160596	50.72	ug/L	100
70) epichlorohydrin	5.521	57	65776	245.41	ug/L	98
71) cis-1,3-dichloropropene	5.615	75	179486	51.63	ug/L	98
72) 4-methyl-2-pentanone	5.715	58	190675	205.58	ug/L	99
73) 3-methyl-1-butanol	5.736	70	88039	1031.86	ug/L	95
76) toluene	5.899	92	270146	48.93	ug/L	97
77) ethyl methacrylate	6.093	69	150804	51.93	ug/L	100
78) trans-1,3-dichloropropene	6.072	75	174700	52.64	ug/L	98
79) 1,1,2-trichloroethane	6.239	83	89857	50.00	ug/L	98
80) 2-hexanone	6.407	58	190647	204.90	ug/L	98
82) 1,3-dichloropropane	6.381	76	166745	50.72	ug/L	99
83) butyl acetate	6.496	56	77457	51.19	ug/L	96
84) dibromochloromethane	6.575	129	147862	54.52	ug/L	99
85) 1,2-dibromoethane	6.685	107	137656	52.44	ug/L	98
86) n-butyl ether	7.173	57	403535	49.20	ug/L	100
87) chlorobenzene	7.120	112	319394	48.95	ug/L	99
88) 1,1,1,2-tetrachloroethane	7.188	131	128090	53.58	ug/L	99
89) ethylbenzene	7.194	91	512433	49.43	ug/L	100
90) m,p-xylene	7.314	106	401084	101.32	ug/L	99
91) o-xylene	7.665	91	406927	50.57	ug/L	99
92) styrene	7.681	104	336438	52.61	ug/L	99
93) butyl acrylate	7.592	56	100761	52.66	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65575.D
 Acq On : 7 Mar 2020 8:23 pm
 Operator : PrashanS
 Sample : ICV2712-50
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 09 10:13:34 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) n-amyl acetate	7.797	70	77678	49.86	ug/L	100
95) bromoform	7.859	173	111323	56.39	ug/L	98
96) isopropylbenzene	8.006	105	498871	51.45	ug/L	100
97) cis-1,4-dichloro-2-butene	8.053	88	61780	53.24	ug/L	98
100) bromobenzene	8.316	156	145438	48.63	ug/L	97
101) 1,1,2,2-tetrachloroethane	8.289	83	148495	48.47	ug/L	100
102) trans-1,4-dichloro-2-b...	8.326	53	42534	53.67	ug/L	97
103) 1,2,3-trichloropropane	8.347	110	44868	48.43	ug/L	92
104) n-propylbenzene	8.399	91	556398	50.07	ug/L	99
105) 2-chlorotoluene	8.494	126	125474	48.95	ug/L	95
106) 4-chlorotoluene	8.614	126	128503	51.97	ug/L	96
107) 1,3,5-trimethylbenzene	8.572	105	396615	50.16	ug/L	100
108) tert-butylbenzene	8.882	134	89625	57.58	ug/L	98
109) 1,2,4-trimethylbenzene	8.940	105	403563	51.08	ug/L	99
110) sec-butylbenzene	9.097	105	463559	50.66	ug/L	97
111) 1,3-dichlorobenzene	9.217	146	249912	51.34	ug/L	99
112) p-isopropyltoluene	9.244	119	405647	53.12	ug/L	99
113) 1,4-dichlorobenzene	9.317	146	251772	49.50	ug/L	99
114) 1,2-dichlorobenzene	9.674	146	236213	51.05	ug/L	98
115) benzyl chloride	9.422	91	203875	41.78	ug/L	98
116) n-butylbenzene	9.647	92	173162	51.77	ug/L	100
117) hexachloroethane	9.941	201	72401	52.23	ug/L	99
118) 1,2-dibromo-3-chloropr...	10.439	157	36335	49.98	ug/L	95
119) nitrobenzene	10.628	77	5806	47.99	ug/L	97
120) 1,3,5-trichlorobenzene	10.628	180	159565	52.04	ug/L	98
121) 1,2,4-trichlorobenzene	11.236	180	131580	50.20	ug/L	98
122) hexachlorobutadiene	11.372	225	52358	47.45	ug/L	98
123) naphthalene	11.482	128	346319	51.03	ug/L	99
124) 1,2,3-trichlorobenzene	11.692	180	107396	49.29	ug/L	99
125) 2-ethylhexyl acrylate	11.409	70	11231	8.70	ug/L	90
126) 2-methylnaphthalene	12.531	142	30252	25.62	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65575.D
 Acq On : 7 Mar 2020 8:23 pm
 Operator : PrashanS
 Sample : ICV2712-50
 Misc : MS41182, V2V2712, 5, , , 1
 ALS Vial : 14 Sample Multiplier: 1

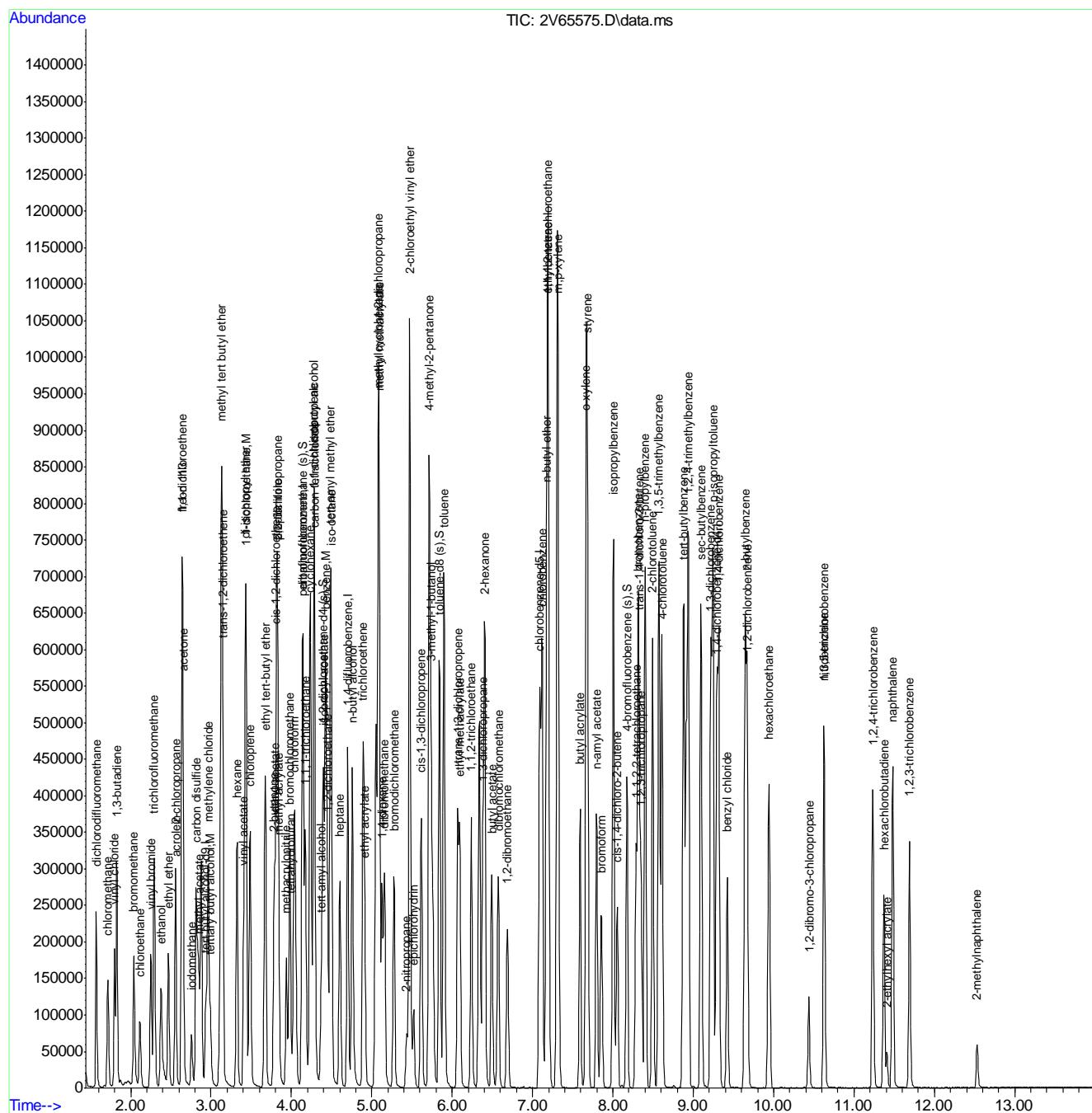
Quant Time: Mar 09 10:13:34 2020

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M

Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)

QLast Update : Mon Mar 09 10:12:58 2020

Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65576.D
 Acq On : 7 Mar 2020 8:49 pm
 Operator : PrashanS
 Sample : ICV2712-50
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 09 10:14:10 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

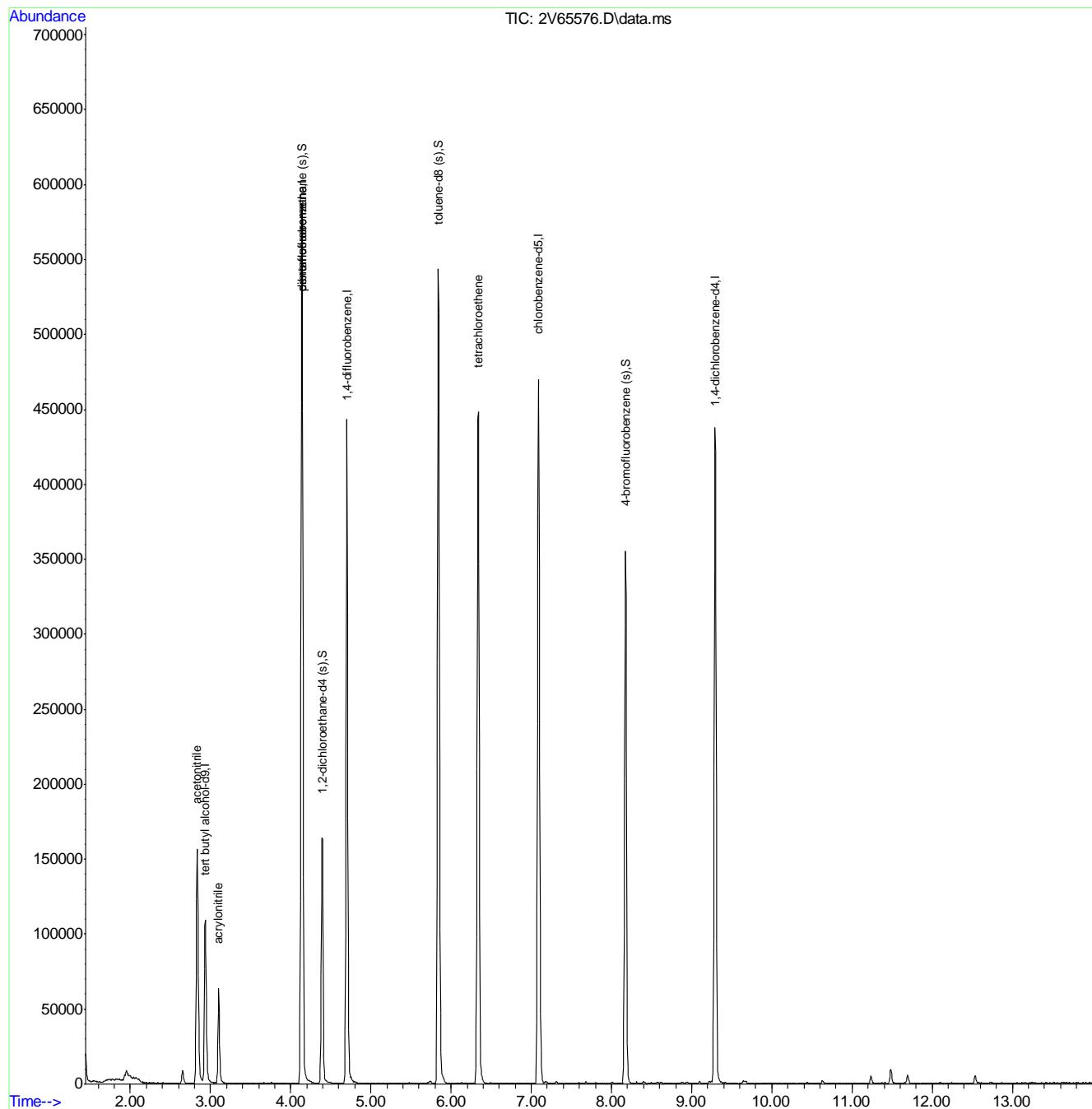
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert butyl alcohol-d9	2.936	65	104789	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	236263	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.703	114	325410	50.00	ug/L	0.00
74) chlorobenzene-d5	7.089	117	265775	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.296	152	119333	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	105529	50.15	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.30%	
53) 1,2-dichloroethane-d4 (s)	4.389	65	98694	50.21	ug/L	0.00
Spiked Amount 50.000 Range 81 - 124			Recovery	=	100.42%	
75) toluene-d8 (s)	5.841	98	340144	50.20	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	100.40%	
99) 4-bromofluorobenzene (s)	8.174	95	109748	49.90	ug/L	0.00
Spiked Amount 50.000 Range 80 - 120			Recovery	=	99.80%	
<hr/>						
Target Compounds						
				Qvalue		
21) acetonitrile	2.832	41	137198	487.55	ug/L	98
33) acrylonitrile	3.099	53	38153	48.22	ug/L	100
81) tetrachloroethene	6.339	164	102052	52.42	ug/L	95
<hr/>						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2V2712\
 Data File : 2V65576.D
 Acq On : 7 Mar 2020 8:49 pm
 Operator : PrashanS
 Sample : ICV2712-50
 Misc : MS41182,V2V2712,5,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 09 10:14:10 2020
 Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67666.d
 Acq On : 21 May 2020 8:30 am
 Operator : ROBERTS
 Sample : CC2712-20 Inst : MS2V
 Misc : MS43230,V2V2800,5,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 08:46:03 2020
 Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
<hr/>						
Internal Standards						
1) tert butyl alcohol-d9	2.931	65	99095	500.00	ug/L	0.00
5) pentafluorobenzene	4.137	168	230061	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.698	114	336240	50.00	ug/L	0.00
74) chlorobenzene-d5	7.089	117	287843	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.291	152	129857	50.00	ug/L	0.00
<hr/>						
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.142	113	104451	50.98	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 101.96%		
53) 1,2-dichloroethane-d4 (s)	4.389	65	98645	48.57	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 97.14%		
75) toluene-d8 (s)	5.841	98	337322	45.97	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 91.94%		
99) 4-bromofluorobenzene (s)	8.174	95	124492	52.02	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 104.04%		
<hr/>						
Target Compounds						
2) ethanol	2.375	45	63120	2052.85	ug/L	97
3) tertiary butyl alcohol	2.989	59	33231	87.03	ug/L	98
4) 1,4-dioxane	5.128	88	17055	512.09	ug/L	95
7) dichlorodifluoromethane	1.573	85	60009	23.06	ug/L	97
8) chloromethane	1.715	50	48614	21.55	ug/L	98
9) vinyl chloride	1.799	62	49037	19.55	ug/L	97
10) bromomethane	2.040	96	20514	16.04	ug/L	97
11) chloroethane	2.119	64	25728	19.67	ug/L	98
12) trichlorofluoromethane	2.292	101	75848	20.30	ug/L	99
13) vinyl bromide	2.250	106	31505	18.82	ug/L	97
14) 1,3-butadiene	1.825	54	35211	20.61	ug/L	99
15) ethyl ether	2.470	74	24535	22.89	ug/L	94
17) acrolein	2.564	56	7206	24.54	ug/L	93
18) freon 113	2.638	151	36705	20.25	ug/L	96
19) 1,1-dichloroethene	2.643	61	62797	21.87	ug/L	97
20) acetone	2.653	58	16768	88.74	ug/L #	86
21) acetonitrile	2.832	41	59162	215.91	ug/L	99
22) iodomethane	2.753	142	10338	9.66	ug/L	95
23) carbon disulfide	2.811	76	97214	21.47	ug/L	93
24) methylene chloride	2.963	84	46186	22.24	ug/L	94
25) methyl acetate	2.853	43	36190	21.16	ug/L	99
26) methyl tert butyl ether	3.130	73	132165	22.26	ug/L	97
27) trans-1,2-dichloroethene	3.146	96	44630	23.01	ug/L	99
28) hexane	3.324	56	25301	20.85	ug/L	96
29) di-isopropyl ether	3.429	45	124954	21.61	ug/L	98
30) ethyl tert-butyl ether	3.670	59	129279	21.62	ug/L	98
31) 1,1-dichloroethane	3.435	63	72978	21.76	ug/L	98
32) chloroprene	3.482	53	56807	20.51	ug/L	96
33) acrylonitrile	3.099	53	16821	21.83	ug/L	93
34) vinyl acetate	3.408	86	9628	22.82	ug/L #	81
35) ethyl acetate	3.796	45	7388	20.68	ug/L #	77
36) 2-butanone	3.786	72	22313	81.06	ug/L #	92
37) 2,2-dichloropropane	3.823	77	64049	20.14	ug/L	99
38) cis-1,2-dichloroethene	3.812	96	48040	20.83	ug/L	99
39) propionitrile	3.823	54	63474	226.74	ug/L	83
40) methyl acrylate	3.838	85	7552	20.53	ug/L	98
41) bromochloromethane	3.980	128	25839	22.25	ug/L	95
42) tetrahydrofuran	3.990	71	6124	20.55	ug/L	96
43) chloroform	4.032	83	79695	20.21	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67666.d
 Acq On : 21 May 2020 8:30 am
 Operator : ROBERTS
 Sample : CC2712-20 Inst : MS2V
 Misc : MS43230,V2V2800,5,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 08:46:03 2020
 Quant Title : SW 846 Method 8260C, Rx-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
45) methacrylonitrile	3.938	67	17391	20.75	ug/L	96
46) 1,1,1-trichloroethane	4.169	97	73840	20.80	ug/L	97
47) cyclohexane	4.231	84	53210	20.29	ug/L	93
48) 1,1-dichloropropene	4.279	75	55824	19.91	ug/L	100
49) carbon tetrachloride	4.289	119	63053	19.80	ug/L	95
50) isobutyl alcohol	4.284	42	13623	188.05	ug/L	87
51) tert-amyl alcohol	4.373	55	10675	96.07	ug/L	96
54) n-butyl alcohol	4.756	56	82885	983.06	ug/L	99
55) benzene	4.425	78	170301	20.83	ug/L	98
56) tert-amyl methyl ether	4.488	73	138437	20.69	ug/L	99
57) iso-octane	4.488	57	89455	19.26	ug/L	98
58) heptane	4.604	57	20560	19.60	ug/L	96
59) isopropyl acetate	4.399	87	10755	18.92	ug/L	93
60) 1,2-dichloroethane	4.446	62	61601	18.69	ug/L	99
61) trichloroethene	4.892	95	47250	20.70	ug/L	99
62) ethyl acrylate	4.908	55	60605	20.05	ug/L	97
63) 2-nitropropane	5.432	41	11318	17.71	ug/L	96
64) 2-chloroethyl vinyl ether	5.469	63	145608	97.22	ug/L	99
65) methyl methacrylate	5.091	100	14010	20.81	ug/L #	87
66) 1,2-dichloropropane	5.086	63	42856	20.81	ug/L	97
67) methylcyclohexane	5.081	83	58515	18.12	ug/L	98
68) dibromomethane	5.154	93	32364	20.20	ug/L	94
69) bromodichloromethane	5.275	83	65654	21.19	ug/L	97
70) epichlorohydrin	5.521	57	25739	98.12	ug/L	91
71) cis-1,3-dichloropropene	5.616	75	69933	20.56	ug/L	95
72) 4-methyl-2-pentanone	5.710	58	73629	81.11	ug/L	97
73) 3-methyl-1-butanol	5.736	70	28996	347.24	ug/L	97
76) toluene	5.899	92	103283	18.77	ug/L	97
77) ethyl methacrylate	6.093	69	56999	19.70	ug/L	97
78) trans-1,3-dichloropropene	6.067	75	64444	19.49	ug/L	96
79) 1,1,2-trichloroethane	6.234	83	34129	19.06	ug/L	96
80) 2-hexanone	6.402	58	72885	78.61	ug/L	96
81) tetrachloroethene	6.334	164	40036	18.99	ug/L	95
82) 1,3-dichloropropane	6.381	76	63162	19.28	ug/L	97
83) butyl acetate	6.491	56	29396	19.50	ug/L	95
84) dibromochloromethane	6.570	129	53327	19.73	ug/L	97
85) 1,2-dibromoethane	6.685	107	55571	21.24	ug/L	97
86) n-butyl ether	7.173	57	159365	19.50	ug/L	99
87) chlorobenzene	7.115	112	125550	19.31	ug/L	99
88) 1,1,1,2-tetrachloroethane	7.183	131	47274	19.85	ug/L	97
89) ethylbenzene	7.194	91	204976	19.84	ug/L	99
90) m,p-xylene	7.309	106	155875	39.52	ug/L	97
91) o-xylene	7.666	91	158342	19.75	ug/L	98
92) styrene	7.681	104	130766	20.52	ug/L	98
93) butyl acrylate	7.587	56	39255	20.59	ug/L	93
94) n-amyl acetate	7.797	70	31716	20.43	ug/L	91
95) bromoform	7.854	173	39353	20.01	ug/L	100
96) isopropylbenzene	8.001	105	186460	19.30	ug/L	97
97) cis-1,4-dichloro-2-butene	8.054	88	18792	16.25	ug/L	97
100) bromobenzene	8.316	156	56308	20.09	ug/L	99
101) 1,1,2,2-tetrachloroethane	8.284	83	58088	20.23	ug/L	99
102) trans-1,4-dichloro-2-b...	8.321	53	12837	17.28	ug/L	97
103) 1,2,3-trichloropropane	8.342	110	17322	19.95	ug/L	98
104) n-propylbenzene	8.400	91	209111	20.07	ug/L	99
105) 2-chlorotoluene	8.494	126	46776	19.47	ug/L	98
106) 4-chlorotoluene	8.609	126	47633	20.55	ug/L	91
107) 1,3,5-trimethylbenzene	8.573	105	149466	20.17	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
 Data File : 2v67666.d
 Acq On : 21 May 2020 8:30 am
 Operator : ROBERTS
 Sample : CC2712-20 Inst : MS2V
 Misc : MS43230,V2V2800,5,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
 Quant Results File: M2V2712.RES
 Quant Time: May 21 08:46:03 2020
 Quant Title : SW 846 Method 8260C, RxI-624 (30m x 0.25mm x 1.4um)
 QLast Update : Mon Mar 09 10:12:58 2020
 Response via : Initial Calibration

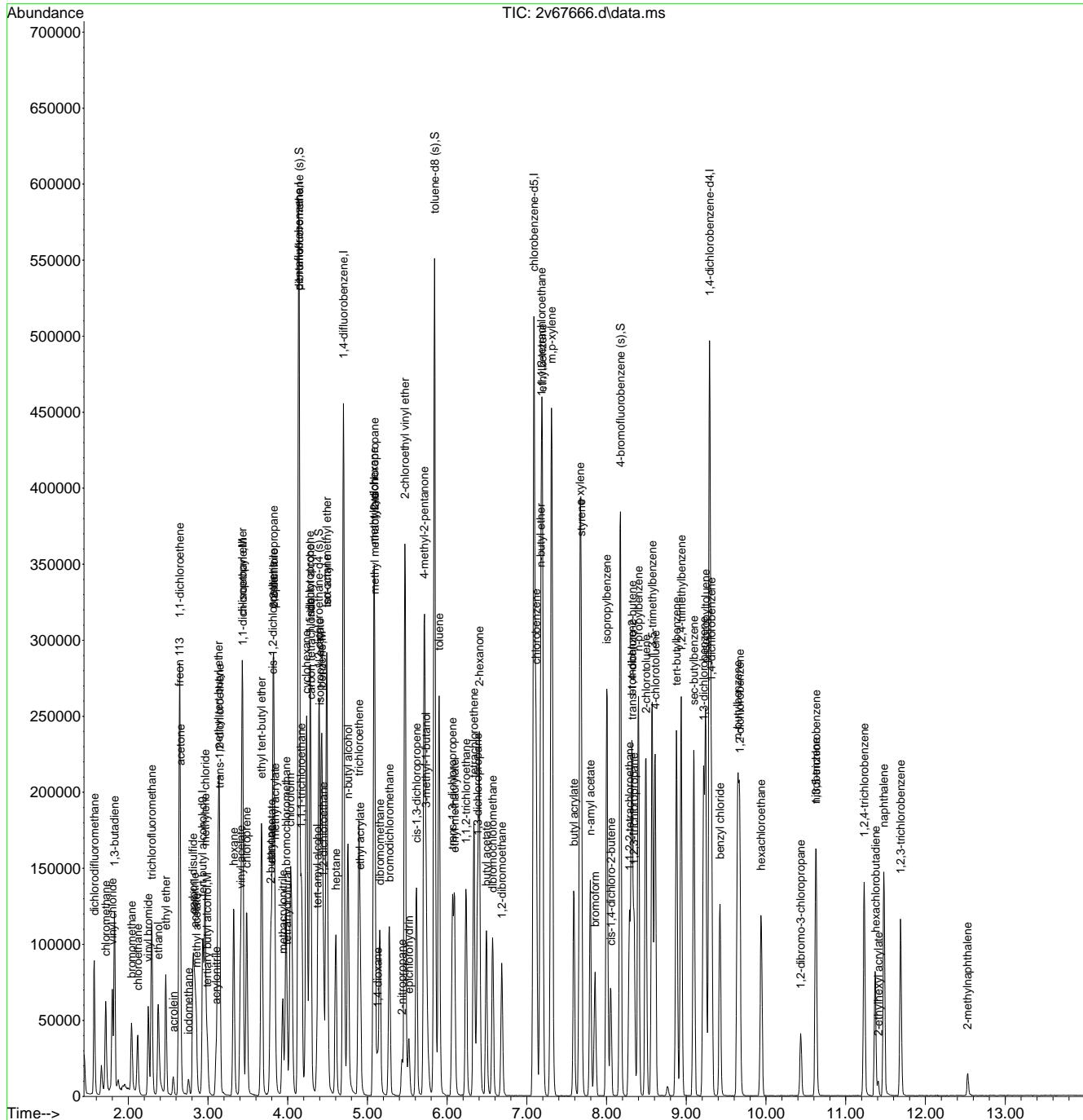
Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
108) tert-butylbenzene	8.877	134	28537	19.56	ug/L	97
109) 1,2,4-trimethylbenzene	8.934	105	151311	20.43	ug/L	99
110) sec-butylbenzene	9.092	105	161675	18.85	ug/L	100
111) 1,3-dichlorobenzene	9.218	146	90140	19.76	ug/L	98
112) p-isopropyltoluene	9.239	119	139751	19.52	ug/L	99
113) 1,4-dichlorobenzene	9.312	146	84140	17.65	ug/L	99
114) 1,2-dichlorobenzene	9.669	146	84593	19.50	ug/L	96
115) benzyl chloride	9.422	91	90755	19.84	ug/L	99
116) n-butylbenzene	9.642	92	60350	19.25	ug/L	98
117) hexachloroethane	9.936	201	21498	16.55	ug/L	94
118) 1,2-dibromo-3-chloropr...	10.434	157	13234	19.42	ug/L	96
119) nitrobenzene	10.623	77	2728	24.05	ug/L	89
120) 1,3,5-trichlorobenzene	10.628	180	56084	19.51	ug/L	97
121) 1,2,4-trichlorobenzene	11.231	180	46660	18.99	ug/L	95
122) hexachlorobutadiene	11.373	225	18005	17.41	ug/L	94
123) naphthalene	11.477	128	118674	18.65	ug/L	99
124) 1,2,3-trichlorobenzene	11.687	180	37133	18.18	ug/L	97
125) 2-ethylhexyl acrylate	11.409	70	2501	2.77	ug/L	83
126) 2-methylnaphthalene	12.526	142	8629	7.80	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\05-22-20\v2v2800\
Data File : 2v67666.d
Acq On : 21 May 2020 8:30 am
Operator : ROBERTS
Sample : CC2712-20 Inst : MS2V
Misc : MS43230,V2V2800,5,,,.1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2V2712.M
Quant Results File: M2V2712.RES
Quant Time: May 21 08:46:03 2020
Quant Title : SW 846 Method 8260C, Rxi-624 (30m x 0.25mm x 1.4um)
QLast Update : Mon Mar 09 10:12:58 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256229.D
 Acq On : 4 Feb 2020 4:10 pm
 Operator : BridgetK
 Sample : ic9958-0.2
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 05 14:35:29 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:49:50 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.141	65	312113	500.00	ug/L	0.00
5) pentafluorobenzene	10.520	168	169707	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.483	114	297521	50.00	ug/L	0.00
74) chlorobenzene-d5	14.877	117	225733	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.497	152	114896	50.00	ug/L	0.00

System Monitoring Compounds						
44) dibromofluoromethane (s)	10.557	113	93236	49.94	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	99.88%		
53) 1,2-dichloroethane-d4 (s)	10.991	65	117364	51.28	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	102.56%		
75) toluene-d8 (s)	13.209	98	336154	50.83	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	101.66%		
99) 4-bromofluorobenzene (s)	16.179	95	100687	50.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	101.56%		

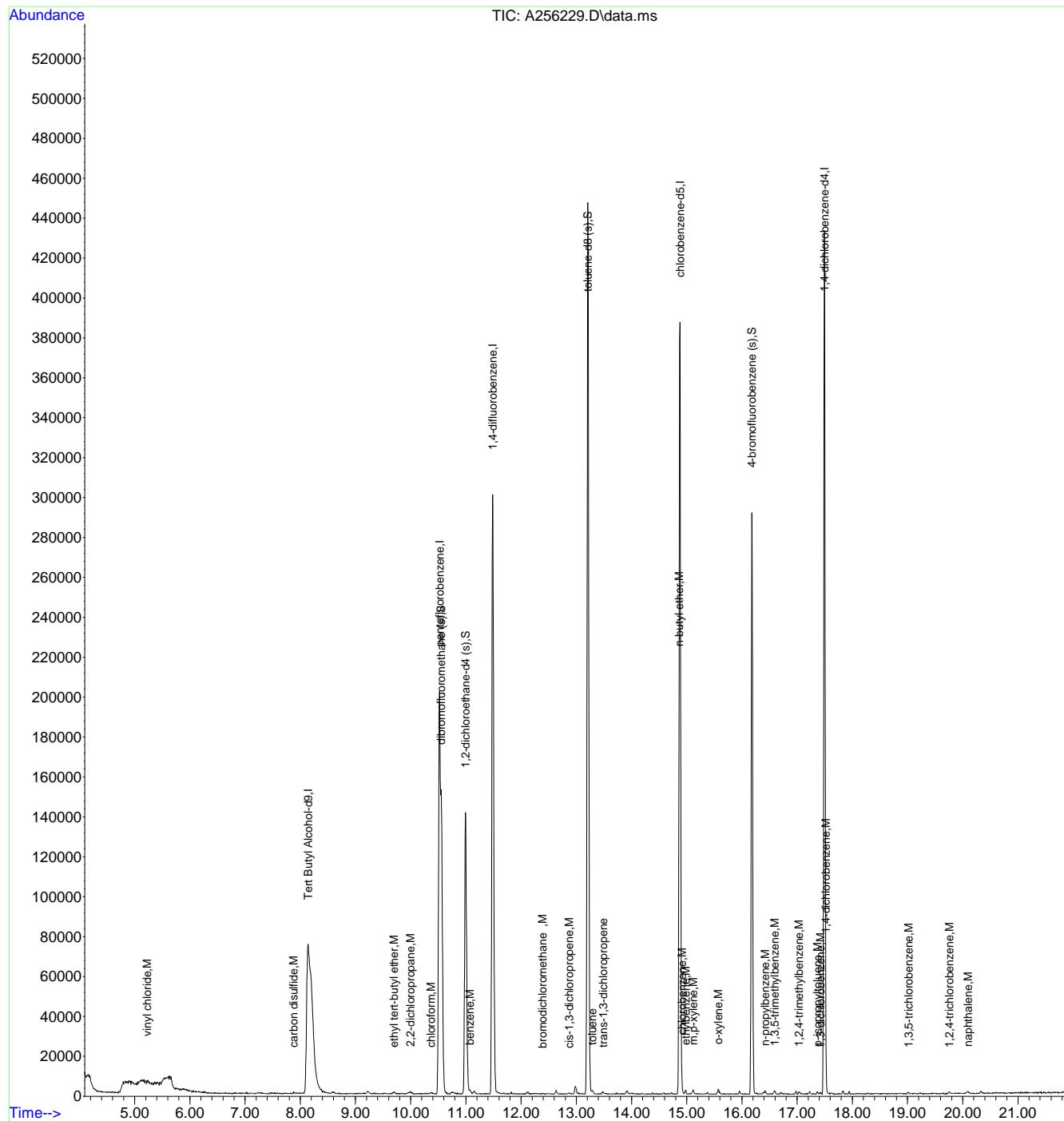
Target Compounds					Qvalue	
9) vinyl chloride	5.222	62	1245	0.19	ug/L	75
22) carbon disulfide	7.879	76	1166	0.19	ug/L	67
29) ethyl tert-butyl ether	9.694	59	1200	0.19	ug/L	81
36) 2,2-dichloropropane	10.003	77	556	0.17	ug/L #	47
42) chloroform	10.369	83	624	0.18	ug/L	77
54) benzene	11.064	78	1531	0.19	ug/L	80
69) bromodichloromethane	12.388	83	481	0.18	ug/L #	25
71) cis-1,3-dichloropropene	12.869	75	583	0.18	ug/L #	64
76) toluene	13.287	92	827	0.19	ug/L #	90
77) trans-1,3-dichloropropene	13.481	75	505	0.19	ug/L #	59
86) n-butyl ether	14.856	57	1536	0.20	ug/L #	1
87) chlorobenzene	14.919	112	899	0.21	ug/L #	66
89) ethylbenzene	14.976	91	1445	0.19	ug/L	84
90) m,p-xylene	15.118	106	876	0.30	ug/L #	52
91) o-xylene	15.573	106	517	0.16	ug/L #	70
104) n-propylbenzene	16.420	91	1727	0.19	ug/L	95
107) 1,3,5-trimethylbenzene	16.593	105	1229	0.17	ug/L	73
109) 1,2,4-trimethylbenzene	17.032	105	1171	0.17	ug/L	90
111) 1,3-dichlorobenzene	17.419	146	698	0.21	ug/L	79
112) p-isopropyltoluene	17.367	119	1254	0.17	ug/L	90
113) 1,4-dichlorobenzene	17.524	146	620	0.19	ug/L	74
117) 1,3,5-trichlorobenzene	19.019	180	507	0.19	ug/L	86
119) 1,2,4-trichlorobenzene	19.762	180	513	0.20	ug/L #	83
121) naphthalene	20.092	128	1876	0.21	ug/L	68

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256229.D
 Acq On : 4 Feb 2020 4:10 pm
 Operator : BridgetK
 Sample : ic9958-0.2
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 05 14:35:29 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rx-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:49:50 2020
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256230.D
 Acq On : 4 Feb 2020 4:40 pm
 Operator : BridgetK
 Sample : ic9958-0.5
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 05 14:37:42 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:49:50 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.137	65	318656	500.00	ug/L	0.00
5) pentafluorobenzene	10.521	168	171171	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.484	114	297811	50.00	ug/L	0.00
74) chlorobenzene-d5	14.873	117	245713	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.493	152	128226	50.00	ug/L	0.00

System Monitoring Compounds						
44) dibromofluoromethane (s)	10.558	113	93257	49.53	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	= 99.06%	
53) 1,2-dichloroethane-d4 (s)	10.992	65	117357	51.22	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	= 102.44%	
75) toluene-d8 (s)	13.210	98	346183	48.09	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	= 96.18%	
99) 4-bromofluorobenzene (s)	16.180	95	111387	50.34	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	= 100.68%	

Target Compounds					Qvalue	
6) chlorodifluoromethane	4.596	51	2155	0.49	ug/L	66
9) vinyl chloride	5.229	62	3895	0.60	ug/L	77
10) 1,3-butadiene	5.255	54	1540	0.48	ug/L	# 71
18) 1,1-dichloroethene	7.478	96	903	0.45	ug/L	# 44
22) carbon disulfide	7.896	76	3382	0.56	ug/L	68
23) methylene chloride	8.205	84	1100	0.48	ug/L	# 73
25) methyl tert butyl ether	8.581	73	2997	0.48	ug/L	87
26) trans-1,2-dichloroethene	8.623	96	952	0.51	ug/L	# 45
28) di-isopropyl ether	9.224	45	3422	0.46	ug/L	# 63
29) ethyl tert-butyl ether	9.695	59	3129	0.49	ug/L	89
31) 1,1-dichloroethane	9.214	63	1706	0.47	ug/L	78
32) chloroprene	9.345	53	1325	0.44	ug/L	84
36) 2,2-dichloropropane	10.019	77	1714	0.51	ug/L	# 47
37) cis-1,2-dichloroethene	9.967	96	915	0.40	ug/L	83
41) tetrahydrofuran	10.323	42	437	0.42	ug/L	# 32
42) chloroform	10.370	83	1843	0.53	ug/L	78
43) tert-butyl formate	10.406	59	840	0.41	ug/L	93
47) 1,1,1-trichloroethane	10.631	97	1489	0.43	ug/L	84
48) iso-butyl alcohol	10.741	43	1862	4.94	ug/L	# 75
49) 1,1-dichloropropene	10.825	75	1404	0.52	ug/L	# 79
54) benzene	11.071	78	4174	0.52	ug/L	84
56) tert-amyl methyl ether	11.139	73	3104	0.48	ug/L	90
62) trichloroethene	11.813	95	989	0.51	ug/L	# 65
67) 1,2-dichloropropane	12.111	63	932	0.44	ug/L	81
69) bromodichloromethane	12.389	83	1171	0.43	ug/L	90
71) cis-1,3-dichloropropene	12.870	75	1408	0.43	ug/L	85
76) toluene	13.293	92	2195	0.46	ug/L	# 85
77) trans-1,3-dichloropropene	13.477	75	1317	0.45	ug/L	70
79) 1,1,2-trichloroethane	13.728	83	589	0.40	ug/L	# 79
81) tetrachloroethene	13.895	166	742	0.40	ug/L	87
82) 1,3-dichloropropane	13.926	76	1374	0.47	ug/L	90
84) dibromochloromethane	14.198	129	738	0.40	ug/L	87
85) 1,2-dibromoethane	14.376	107	813	0.44	ug/L	96
86) n-butyl ether	14.857	57	4450	0.53	ug/L	# 30
87) chlorobenzene	14.904	112	2285	0.49	ug/L	83
89) ethylbenzene	14.978	91	4264	0.51	ug/L	78
90) m,p-xylene	15.108	106	3255	1.03	ug/L	# 60
91) o-xylene	15.563	106	1468	0.42	ug/L	98
93) butyl acrylate	15.359	55	1852	0.44	ug/L	82
94) n-amyl acetate	15.595	70	862	0.47	ug/L	# 72
96) isopropylbenzene	15.950	105	3959	0.43	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256230.D
 Acq On : 4 Feb 2020 4:40 pm
 Operator : BridgetK
 Sample : ic9958-0.5
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 05 14:37:42 2020

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M

Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um

QLast Update : Wed Feb 05 09:49:50 2020

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) 1,1,2,2-tetrachloroethane	16.259	83	1366	0.47	ug/L	94
104) n-propylbenzene	16.421	91	4635	0.46	ug/L	94
105) 2-chlorotoluene	16.578	126	978	0.46	ug/L	# 70
106) 4-chlorotoluene	16.703	91	2630	0.48	ug/L	95
107) 1,3,5-trimethylbenzene	16.594	105	3509	0.43	ug/L	87
109) 1,2,4-trimethylbenzene	17.043	105	3315	0.43	ug/L	98
110) sec-butylbenzene	17.227	105	4135	0.39	ug/L	94
111) 1,3-dichlorobenzene	17.415	146	1748	0.48	ug/L	80
112) p-isopropyltoluene	17.368	119	3429	0.41	ug/L	90
113) 1,4-dichlorobenzene	17.530	146	2142	0.58	ug/L	99
114) 1,2-dichlorobenzene	17.938	146	1884	0.49	ug/L	87
115) n-butylbenzene	17.828	92	1871	0.46	ug/L	86
117) 1,3,5-trichlorobenzene	19.010	180	1648	0.55	ug/L	83
119) 1,2,4-trichlorobenzene	19.758	180	1393	0.49	ug/L	90
121) naphthalene	20.087	128	4229	0.43	ug/L	98
122) 1,2,3-trichlorobenzene	20.333	180	1256	0.42	ug/L	89

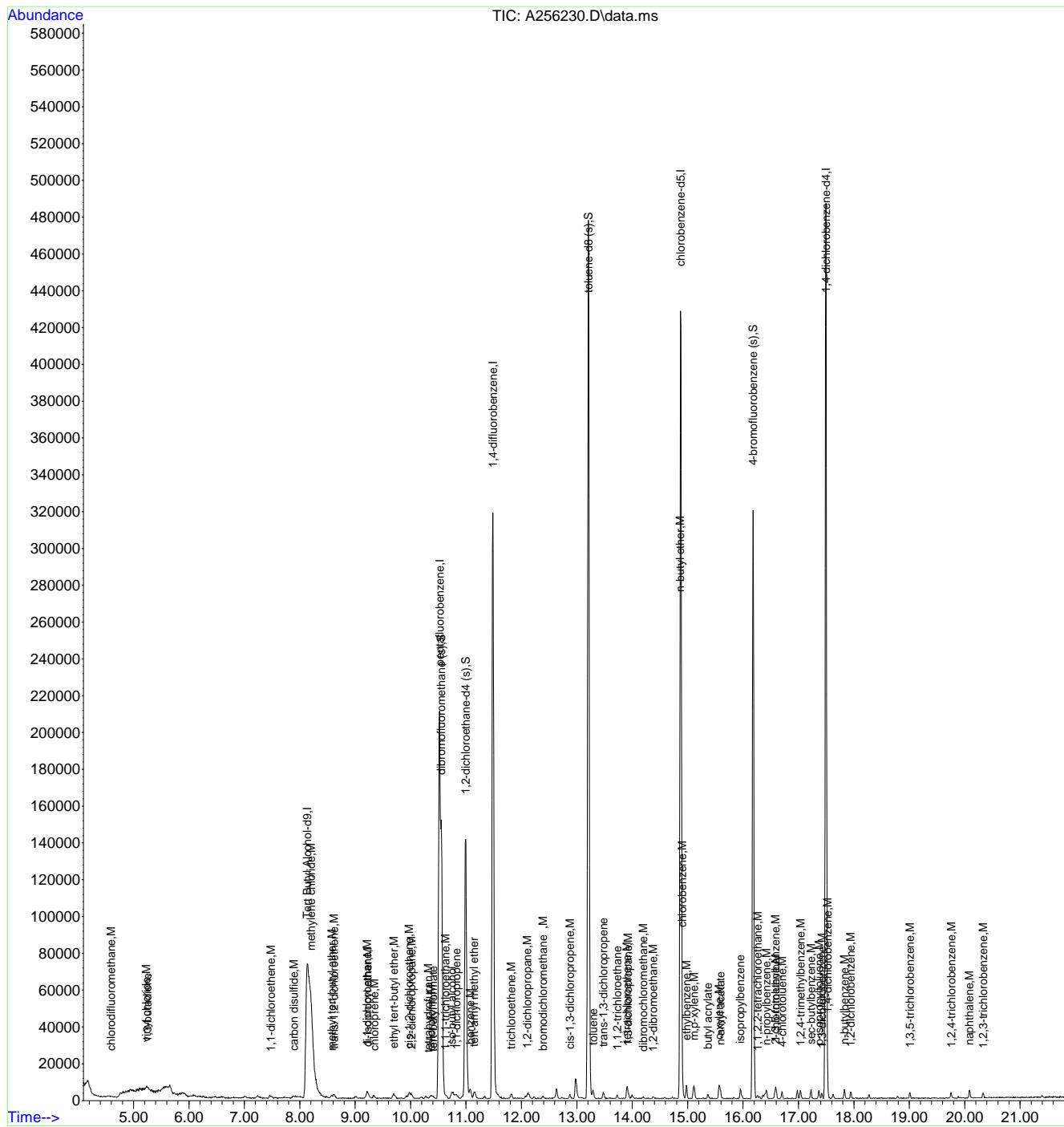
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.15
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256230.D
 Acq On : 4 Feb 2020 4:40 pm
 Operator : BridgetK
 Sample : ic9958-0.5
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 05 14:37:42 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rx-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:49:50 2020
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\

Data File : A256231.D

Acq On : 4 Feb 2020 5:09 pm

Operator : BridgetK

Sample : ic9958-1

Misc : MS40670,VA9958,5,,,1

ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 05 14:39:02 2020

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M

Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um

QLast Update : Wed Feb 05 09:58:31 2020

Response via : Initial Calibration

7.6.16

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Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.138	65	306589	500.00	ug/L	0.00
5) pentafluorobenzene	10.518	168	178058	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.486	114	310466	50.00	ug/L	0.00
74) chlorobenzene-d5	14.875	117	245417	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.495	152	125219	50.00	ug/L	0.00

System Monitoring Compounds

44) dibromofluoromethane (s)	10.555	113	95595	48.81	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	= 97.62%	
53) 1,2-dichloroethane-d4 (s)	10.994	65	120279	50.36	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	= 100.72%	
75) toluene-d8 (s)	13.211	98	352022	48.96	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	= 97.92%	
99) 4-bromofluorobenzene (s)	16.182	95	111669	51.68	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	= 103.36%	

Target Compounds

				Qvalue	
3) tertiary butyl alcohol	8.316	59	3405	4.71	ug/L 69
6) chlorodifluoromethane	4.587	51	4404	0.97	ug/L 66
8) chloromethane	4.953	50	7538	1.14	ug/L 84
9) vinyl chloride	5.230	62	7051	1.04	ug/L 83
10) 1,3-butadiene	5.262	54	3398	1.02	ug/L # 78
11) bromomethane	5.905	94	4631	1.01	ug/L 97
12) chloroethane	6.083	64	2522	0.89	ug/L # 45
13) vinyl bromide	6.486	106	2506	0.99	ug/L # 94
14) trichlorofluoromethane	6.601	101	3553	0.84	ug/L 70
15) ethyl ether	7.019	74	1013	0.83	ug/L # 42
18) 1,1-dichloroethene	7.453	96	1716	0.83	ug/L # 52
19) acetone	7.495	43	4340	3.99	ug/L 97
20) acetonitrile	7.929	41	4824	9.31	ug/L 88
22) carbon disulfide	7.898	76	6845	1.08	ug/L 89
23) methylene chloride	8.201	84	2402	1.00	ug/L 87
24) methyl acetate	7.966	43	2011	0.85	ug/L # 61
25) methyl tert butyl ether	8.578	73	6365	0.97	ug/L # 52
26) trans-1,2-dichloroethene	8.614	96	1919	0.99	ug/L # 66
27) hexane	9.012	57	1907	0.74	ug/L # 84
28) di-isopropyl ether	9.210	45	7325	0.95	ug/L 93
29) ethyl tert-butyl ether	9.692	59	6293	0.94	ug/L 98
30) 2-butanone	9.901	72	1231	2.86	ug/L # 45
31) 1,1-dichloroethane	9.226	63	3576	0.94	ug/L 86
32) chloroprene	9.336	53	2885	0.93	ug/L 84
36) 2,2-dichloropropane	10.021	77	3383	0.97	ug/L 70
37) cis-1,2-dichloroethene	9.969	96	2336	0.99	ug/L # 72
40) bromochloromethane	10.288	128	919	0.82	ug/L # 46
41) tetrahydrofuran	10.309	42	1052	0.98	ug/L # 32
42) chloroform	10.366	83	3864	1.07	ug/L 80
43) tert-butyl formate	10.403	59	1970	0.92	ug/L 89
46) cyclohexane	10.764	84	2729	0.76	ug/L # 80
47) 1,1,1-trichloroethane	10.649	97	3477	0.96	ug/L 92
48) iso-butyl alcohol	10.764	43	3804	9.70	ug/L 83
49) 1,1-dichloropropene	10.816	75	2758	0.99	ug/L 96
50) carbon tetrachloride	10.853	117	2518	0.85	ug/L 98
54) benzene	11.067	78	8536	1.02	ug/L 88
56) tert-amyl methyl ether	11.146	73	6742	0.99	ug/L 91
57) heptane	11.339	71	1182	0.81	ug/L # 68
59) 1,2-dichloroethane	11.083	62	3568	1.19	ug/L 86
62) trichloroethene	11.820	95	1876	0.94	ug/L 88
65) 2-chloroethyl vinyl ether	12.636	63	5411	4.04	ug/L 91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\

Data File : A256231.D

Acq On : 4 Feb 2020 5:09 pm

Operator : BridgetK

Sample : ic9958-1

Misc : MS40670,VA9958,5,,,1

ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 05 14:39:02 2020

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M

Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um

QLast Update : Wed Feb 05 09:58:31 2020

Response via : Initial Calibration

7.6.16

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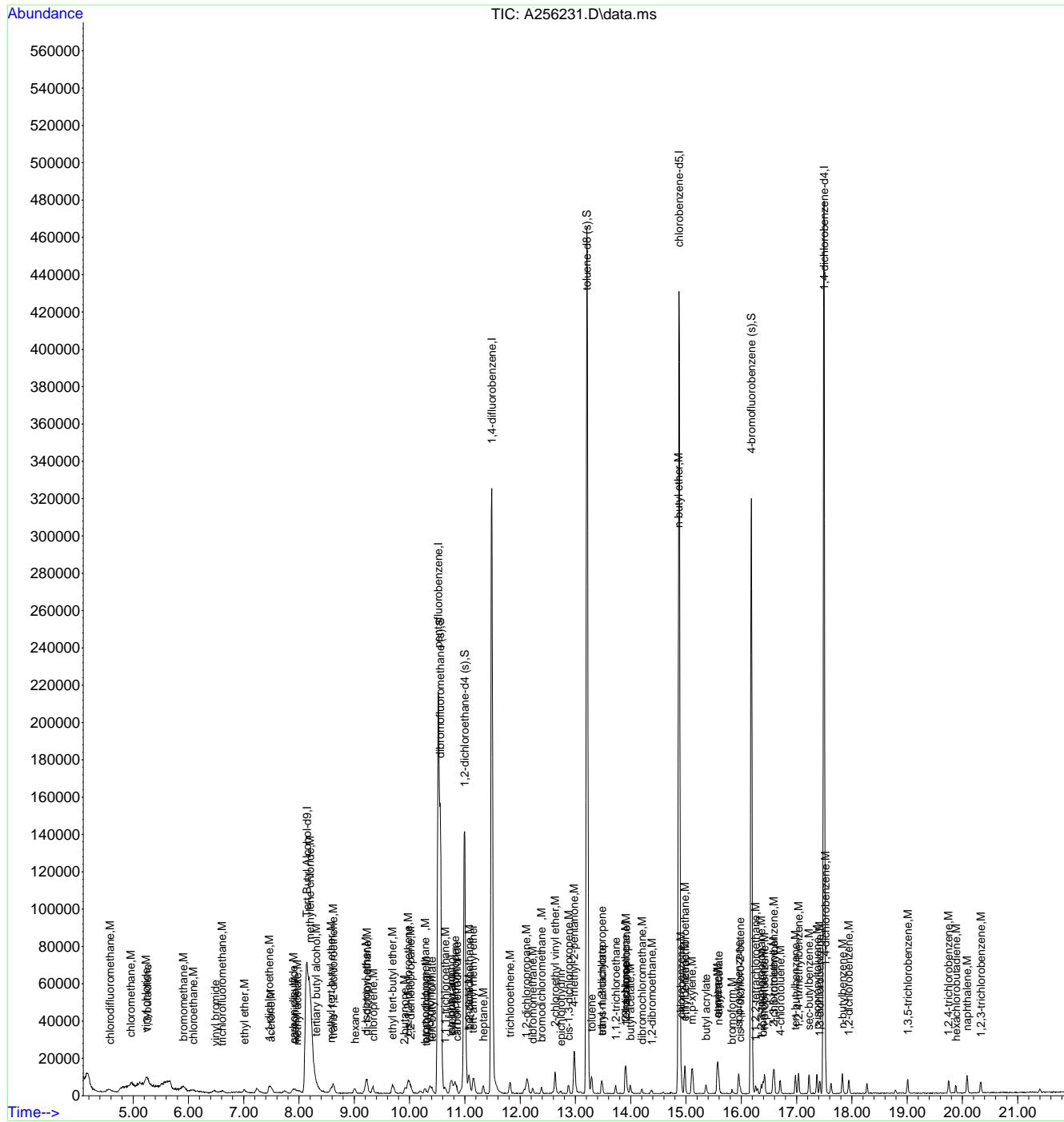
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
67) 1,2-dichloropropane	12.108	63	2005	0.90	ug/L	96
68) dibromomethane	12.223	93	1330	0.95	ug/L	86
69) bromodichloromethane	12.385	83	2742	0.96	ug/L	87
70) epichlorohydrin	12.730	57	1527	4.41	ug/L #	55
71) cis-1,3-dichloropropene	12.872	75	3291	0.96	ug/L	96
72) 4-methyl-2-pentanone	12.981	58	5050	3.49	ug/L	97
76) toluene	13.285	92	4626	0.98	ug/L #	77
77) trans-1,3-dichloropropene	13.483	75	2638	0.90	ug/L	87
78) ethyl methacrylate	13.473	69	2524	0.90	ug/L	78
79) 1,1,2-trichloroethane	13.729	83	1359	0.92	ug/L #	72
80) 2-hexanone	13.907	58	4058	3.62	ug/L	96
81) tetrachloroethene	13.897	166	1638	0.89	ug/L	97
82) 1,3-dichloropropane	13.923	76	2886	0.98	ug/L	98
83) butyl acetate	13.991	56	1545	0.96	ug/L #	66
84) dibromochloromethane	14.205	129	1557	0.84	ug/L	97
85) 1,2-dibromoethane	14.383	107	1858	1.01	ug/L	98
86) n-butyl ether	14.859	57	8548	1.03	ug/L	63
87) chlorobenzene	14.916	112	4324	0.93	ug/L	94
88) 1,1,1,2-tetrachloroethane	14.984	131	1871	0.87	ug/L	93
89) ethylbenzene	14.979	91	7765	0.93	ug/L	90
90) m,p-xylene	15.105	106	6217	1.98	ug/L	88
91) o-xylene	15.565	106	3172	0.90	ug/L	99
92) styrene	15.576	104	4783	0.92	ug/L	96
93) butyl acrylate	15.366	55	4174	1.00	ug/L	87
94) n-amyl acetate	15.591	70	1603	0.88	ug/L	89
95) bromoform	15.832	173	1037	0.90	ug/L	79
96) isopropylbenzene	15.957	105	8403	0.90	ug/L	92
97) cis-1,4-dichloro-2-butene	15.983	75	906	0.87	ug/L	95
100) bromobenzene	16.397	156	1738	0.95	ug/L #	79
101) 1,1,2,2-tetrachloroethane	16.261	83	2772	0.97	ug/L	90
103) 1,2,3-trichloropropane	16.360	110	725	0.98	ug/L	85
104) n-propylbenzene	16.418	91	9405	0.96	ug/L	85
105) 2-chlorotoluene	16.574	126	1931	0.93	ug/L	88
106) 4-chlorotoluene	16.700	91	5239	0.97	ug/L	95
107) 1,3,5-trimethylbenzene	16.595	105	6701	0.85	ug/L	94
108) tert-butylbenzene	16.977	119	5542	0.81	ug/L	94
109) 1,2,4-trimethylbenzene	17.035	105	6494	0.87	ug/L	97
110) sec-butylbenzene	17.228	105	8811	0.85	ug/L	95
111) 1,3-dichlorobenzene	17.422	146	3405	0.96	ug/L	92
112) p-isopropyltoluene	17.369	119	6787	0.83	ug/L	94
113) 1,4-dichlorobenzene	17.526	146	3499	0.97	ug/L	87
114) 1,2-dichlorobenzene	17.939	146	3562	0.95	ug/L	96
115) n-butylbenzene	17.830	92	3847	0.97	ug/L	89
117) 1,3,5-trichlorobenzene	19.012	180	2826	0.97	ug/L	96
119) 1,2,4-trichlorobenzene	19.749	180	2984	1.07	ug/L	80
120) hexachlorobutadiene	19.885	225	1078	1.02	ug/L	82
121) naphthalene	20.084	128	8616	0.90	ug/L	95
122) 1,2,3-trichlorobenzene	20.335	180	2848	0.97	ug/L	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256231.D
 Acq On : 4 Feb 2020 5:09 pm
 Operator : BridgetK
 Sample : ic9958-1
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 05 14:39:02 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rx-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256232.D
 Acq On : 4 Feb 2020 5:39 pm
 Operator : BridgetK
 Sample : ic9958-2
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 05 14:39:42 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.132	65	317092	500.00	ug/L	0.00
5) pentafluorobenzene	10.522	168	175106	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.484	114	309581	50.00	ug/L	0.00
74) chlorobenzene-d5	14.873	117	239970	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.494	152	123529	50.00	ug/L	0.00

System Monitoring Compounds						
44) dibromofluoromethane (s)	10.559	113	94026	48.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 97.62%		
53) 1,2-dichloroethane-d4 (s)	10.993	65	120422	50.56	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery	= 101.12%		
75) toluene-d8 (s)	13.210	98	351181	49.95	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 99.90%		
99) 4-bromofluorobenzene (s)	16.181	95	107596	50.47	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery	= 100.94%		

Target Compounds					Qvalue
3) tertiary butyl alcohol	8.268	59	9284	12.41	ug/L 83
4) 1,4-dioxane	12.154	88	3156	63.61	ug/L 80
6) chlorodifluoromethane	4.544	51	10559	2.36	ug/L 94
7) dichlorodifluoromethane	4.528	85	8303	1.73	ug/L 80
8) chloromethane	4.973	50	14461	2.22	ug/L 95
9) vinyl chloride	5.234	62	13955	2.08	ug/L 91
10) 1,3-butadiene	5.245	54	7717	2.37	ug/L 94
11) bromomethane	5.904	94	8599	1.91	ug/L 93
12) chloroethane	6.087	64	5403	1.95	ug/L 91
13) vinyl bromide	6.474	106	4964	1.98	ug/L 97
14) trichlorofluoromethane	6.615	101	7946	1.92	ug/L 97
15) ethyl ether	7.002	74	2785	2.31	ug/L # 77
17) freon 113	7.499	151	3507	1.97	ug/L # 88
18) 1,1-dichloroethene	7.468	96	4623	2.28	ug/L 88
19) acetone	7.478	43	10278	9.62	ug/L 90
20) acetonitrile	7.917	41	12968	25.45	ug/L 90
21) iodomethane	7.734	142	6634	2.25	ug/L 94
22) carbon disulfide	7.891	76	14485	2.33	ug/L 98
23) methylene chloride	8.215	84	5614	2.38	ug/L 77
24) methyl acetate	7.975	43	5394	2.31	ug/L # 75
25) methyl tert butyl ether	8.582	73	15768	2.45	ug/L 97
26) trans-1,2-dichloroethene	8.629	96	4359	2.28	ug/L 93
27) hexane	9.010	57	4671	1.83	ug/L 95
28) di-isopropyl ether	9.214	45	17133	2.26	ug/L 91
29) ethyl tert-butyl ether	9.690	59	15195	2.31	ug/L 96
30) 2-butanone	9.900	72	3607	8.52	ug/L 90
31) 1,1-dichloroethane	9.220	63	8519	2.28	ug/L 94
32) chloroprene	9.329	53	6759	2.21	ug/L 92
33) acrylonitrile	8.545	53	2250	1.99	ug/L 90
34) vinyl acetate	9.183	86	806	1.68	ug/L # 11
36) 2,2-dichloropropane	10.015	77	7818	2.29	ug/L 99
37) cis-1,2-dichloroethene	9.973	96	5124	2.21	ug/L 87
39) propionitrile	9.973	54	10952	23.22	ug/L 90
40) bromochloromethane	10.271	128	2389	2.17	ug/L 88
41) tetrahydrofuran	10.313	42	2453	2.32	ug/L 93
42) chloroform	10.365	83	8465	2.38	ug/L 88
43) tert-butyl formate	10.402	59	4584	2.18	ug/L 90
45) methacrylonitrile	10.182	67	2530	2.20	ug/L 81
46) cyclohexane	10.763	84	6508	1.83	ug/L 83
47) 1,1,1-trichloroethane	10.642	97	7518	2.12	ug/L 88
48) iso-butyl alcohol	10.768	43	9497	24.61	ug/L # 75

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256232.D
 Acq On : 4 Feb 2020 5:39 pm
 Operator : BridgetK
 Sample : ic9958-2
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 05 14:39:42 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 1,1-dichloropropene	10.810	75	6007	2.19	ug/L	83
50) carbon tetrachloride	10.851	117	6017	2.05	ug/L	98
51) tert-amyl alcohol	10.940	73	4178	11.89	ug/L	91
54) benzene	11.071	78	19142	2.29	ug/L	98
55) iso-octane	11.160	57	11273	1.57	ug/L	93
56) tert-amyl methyl ether	11.150	73	15820	2.33	ug/L	99
57) heptane	11.333	71	2570	1.76	ug/L	95
58) isopropyl acetate	10.961	87	1254	1.92	ug/L #	19
59) 1,2-dichloroethane	11.087	62	7365	2.46	ug/L	89
60) n-butyl alcohol	11.537	41	14117	117.73	ug/L #	69
61) ethyl acrylate	11.793	55	7569	2.24	ug/L	95
62) trichloroethene	11.819	95	4504	2.25	ug/L	92
63) 2-nitropropane	12.598	41	2753	2.43	ug/L	80
64) methylcyclohexane	12.138	83	7028	1.82	ug/L	97
65) 2-chloroethyl vinyl ether	12.630	63	13934	10.44	ug/L	97
66) methyl methacrylate	12.070	100	1189	1.88	ug/L #	85
67) 1,2-dichloropropane	12.112	63	4945	2.24	ug/L	97
68) dibromomethane	12.227	93	3359	2.40	ug/L	94
69) bromodichloromethane	12.389	83	6341	2.22	ug/L	96
70) epichlorohydrin	12.734	57	4159	12.05	ug/L #	82
71) cis-1,3-dichloropropene	12.881	75	7469	2.19	ug/L	92
72) 4-methyl-2-pentanone	12.980	58	13038	9.04	ug/L	95
73) 3-methyl-1-butanol	12.980	55	12532	44.02	ug/L	97
76) toluene	13.289	92	10766	2.32	ug/L	91
77) trans-1,3-dichloropropene	13.482	75	6578	2.30	ug/L	90
78) ethyl methacrylate	13.472	69	6350	2.33	ug/L	95
79) 1,1,2-trichloroethane	13.728	83	3395	2.34	ug/L	88
80) 2-hexanone	13.901	58	11503	10.51	ug/L	98
81) tetrachloroethene	13.901	166	4071	2.26	ug/L	80
82) 1,3-dichloropropane	13.927	76	6834	2.38	ug/L	97
83) butyl acetate	13.990	56	3776	2.40	ug/L	99
84) dibromochloromethane	14.194	129	4101	2.26	ug/L	85
85) 1,2-dibromoethane	14.371	107	4510	2.52	ug/L	91
86) n-butyl ether	14.853	57	19084	2.34	ug/L	84
87) chlorobenzene	14.910	112	10410	2.29	ug/L	98
88) 1,1,1,2-tetrachloroethane	14.978	131	4326	2.06	ug/L	82
89) ethylbenzene	14.978	91	18288	2.25	ug/L	98
90) m,p-xylene	15.114	106	13086	4.25	ug/L	97
91) o-xylene	15.564	106	7213	2.09	ug/L #	80
92) styrene	15.574	104	11391	2.24	ug/L	94
93) butyl acrylate	15.360	55	10062	2.46	ug/L	96
94) n-amyl acetate	15.590	70	4268	2.40	ug/L	86
95) bromoform	15.831	173	2640	2.33	ug/L	89
96) isopropylbenzene	15.956	105	18345	2.02	ug/L	96
97) cis-1,4-dichloro-2-butene	15.987	75	2354	2.30	ug/L	89
100) bromobenzene	16.390	156	4417	2.44	ug/L	89
101) 1,1,2,2-tetrachloroethane	16.259	83	7015	2.49	ug/L	97
103) 1,2,3-trichloropropane	16.359	110	1800	2.47	ug/L	90
104) n-propylbenzene	16.422	91	20522	2.12	ug/L	99
105) 2-chlorotoluene	16.573	126	4221	2.06	ug/L	95
106) 4-chlorotoluene	16.699	91	12031	2.26	ug/L	99
107) 1,3,5-trimethylbenzene	16.594	105	15200	1.95	ug/L	90
108) tert-butylbenzene	16.981	119	12522	1.85	ug/L	89
109) 1,2,4-trimethylbenzene	17.039	105	15242	2.07	ug/L	96
110) sec-butylbenzene	17.227	105	18585	1.82	ug/L	95
111) 1,3-dichlorobenzene	17.421	146	8333	2.37	ug/L	99
112) p-isopropyltoluene	17.363	119	15765	1.95	ug/L	96
113) 1,4-dichlorobenzene	17.525	146	8338	2.33	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256232.D
 Acq On : 4 Feb 2020 5:39 pm
 Operator : BridgetK
 Sample : ic9958-2
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 05 14:39:42 2020

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

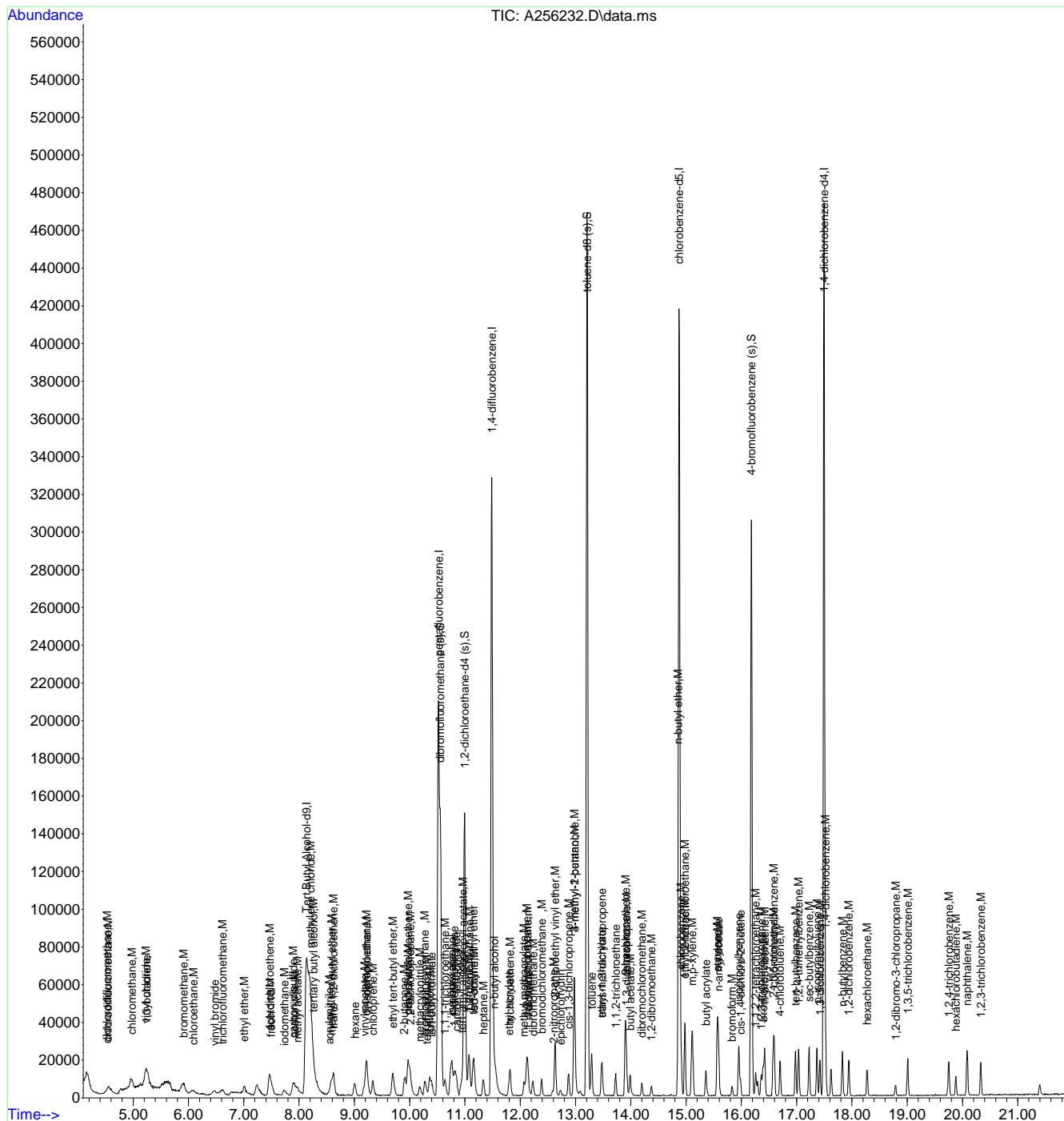
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
114) 1,2-dichlorobenzene	17.949	146	8163	2.20	ug/L	97
115) n-butylbenzene	17.823	92	7748	1.97	ug/L	92
116) 1,2-dibromo-3-chloropr...	18.791	157	1743	2.43	ug/L	87
117) 1,3,5-trichlorobenzene	19.010	180	6826	2.37	ug/L	96
119) 1,2,4-trichlorobenzene	19.753	180	6207	2.26	ug/L	95
120) hexachlorobutadiene	19.879	225	2397	2.31	ug/L	92
121) naphthalene	20.083	128	20869	2.21	ug/L	98
122) 1,2,3-trichlorobenzene	20.328	180	6261	2.17	ug/L	95
123) hexachloroethane	18.273	201	2216	1.81	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256232.D
 Acq On : 4 Feb 2020 5:39 pm
 Operator : BridgetK
 Sample : ic9958-2
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 05 14:39:42 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rx-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256233.D
 Acq On : 4 Feb 2020 6:09 pm
 Operator : BridgetK
 Sample : ic9958-4
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 05 14:40:06 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.133	65	309074	500.00	ug/L	0.00
5) pentafluorobenzene	10.518	168	170209	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.486	114	296920	50.00	ug/L	0.00
74) chlorobenzene-d5	14.875	117	245472	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.495	152	123978	50.00	ug/L	0.00

System Monitoring Compounds						
44) dibromofluoromethane (s)	10.555	113	94068	50.24	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	= 100.48%	
53) 1,2-dichloroethane-d4 (s)	10.989	65	118358	51.81	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	= 103.62%	
75) toluene-d8 (s)	13.206	98	349267	48.57	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	= 97.14%	
99) 4-bromofluorobenzene (s)	16.182	95	108456	50.69	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	= 101.38%	

Target Compounds					Qvalue	
3) tertiary butyl alcohol	8.280	59	13873	19.02	ug/L	92
4) 1,4-dioxane	12.155	88	4621	95.55	ug/L	100
6) chlorodifluoromethane	4.556	51	17828	4.10	ug/L	89
7) dichlorodifluoromethane	4.556	85	19418	4.16	ug/L	90
8) chloromethane	4.969	50	29059	4.59	ug/L	93
9) vinyl chloride	5.225	62	28142	4.33	ug/L	96
10) 1,3-butadiene	5.241	54	13712	4.33	ug/L	90
11) bromomethane	5.900	94	16772	3.83	ug/L	92
12) chloroethane	6.078	64	10621	3.94	ug/L	84
13) vinyl bromide	6.465	106	9863	4.06	ug/L	99
14) trichlorofluoromethane	6.601	101	16714	4.15	ug/L	92
15) ethyl ether	6.998	74	4239	3.62	ug/L #	78
16) acrolein	7.265	56	1792	3.05	ug/L	68
17) freon 113	7.495	151	6683	3.87	ug/L #	96
18) 1,1-dichloroethene	7.458	96	8087	4.09	ug/L	87
19) acetone	7.464	43	16128	15.52	ug/L	99
20) acetonitrile	7.929	41	19747	39.86	ug/L	87
21) iodomethane	7.730	142	11429	3.99	ug/L	94
22) carbon disulfide	7.887	76	24042	3.97	ug/L	96
23) methylene chloride	8.206	84	9563	4.17	ug/L	93
24) methyl acetate	7.966	43	8971	3.95	ug/L	91
25) methyl tert butyl ether	8.583	73	24923	3.98	ug/L	98
26) trans-1,2-dichloroethene	8.619	96	7318	3.94	ug/L	88
27) hexane	8.996	57	10038	4.05	ug/L	96
28) di-isopropyl ether	9.216	45	30095	4.09	ug/L	94
29) ethyl tert-butyl ether	9.697	59	24803	3.88	ug/L	95
30) 2-butanone	9.906	72	5726	13.91	ug/L #	76
31) 1,1-dichloroethane	9.226	63	14523	4.00	ug/L	98
32) chloroprene	9.326	53	11670	3.92	ug/L	93
33) acrylonitrile	8.515	53	3725	3.38	ug/L	81
34) vinyl acetate	9.163	86	1580	3.38	ug/L #	38
35) ethyl acetate	9.917	45	1651	3.29	ug/L	99
36) 2,2-dichloropropane	10.011	77	13136	3.96	ug/L	97
37) cis-1,2-dichloroethene	9.964	96	8787	3.90	ug/L	92
38) methyl acrylate	10.005	85	1184	2.68	ug/L #	38
39) propionitrile	9.969	54	16017	34.94	ug/L	95
40) bromochloromethane	10.277	128	3773	3.52	ug/L	95
41) tetrahydrofuran	10.304	42	3777	3.68	ug/L	97
42) chloroform	10.361	83	13851	4.00	ug/L	95
43) tert-butyl formate	10.398	59	7341	3.59	ug/L	93
45) methacrylonitrile	10.183	67	3872	3.46	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256233.D
 Acq On : 4 Feb 2020 6:09 pm
 Operator : BridgetK
 Sample : ic9958-4
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 05 14:40:06 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cyclohexane	10.759	84	13557	3.93	ug/L	97
47) 1,1,1-trichloroethane	10.644	97	13007	3.77	ug/L	96
48) iso-butyl alcohol	10.753	43	14493	38.64	ug/L	98
49) 1,1-dichloropropene	10.816	75	10099	3.80	ug/L	96
50) carbon tetrachloride	10.853	117	10378	3.65	ug/L	95
51) tert-amyl alcohol	10.931	73	6371	18.66	ug/L #	73
54) benzene	11.062	78	30787	3.84	ug/L	98
55) iso-octane	11.167	57	25029	3.64	ug/L	95
56) tert-amyl methyl ether	11.146	73	26070	4.01	ug/L	95
57) heptane	11.334	71	5102	3.64	ug/L	97
58) isopropyl acetate	10.952	87	2067	3.29	ug/L #	45
59) 1,2-dichloroethane	11.083	62	12036	4.20	ug/L	98
60) n-butyl alcohol	11.533	41	20928	181.98	ug/L	97
61) ethyl acrylate	11.789	55	12266	3.79	ug/L	97
62) trichloroethene	11.820	95	6992	3.64	ug/L	97
63) 2-nitropropane	12.594	41	4223	3.88	ug/L	89
64) methylcyclohexane	12.134	83	13689	3.71	ug/L	98
65) 2-chloroethyl vinyl ether	12.631	63	23694	18.51	ug/L	93
66) methyl methacrylate	12.071	100	2065	3.41	ug/L	97
67) 1,2-dichloropropane	12.108	63	7816	3.69	ug/L	92
68) dibromomethane	12.228	93	5130	3.83	ug/L	91
69) bromodichloromethane	12.385	83	10442	3.82	ug/L	97
70) epichlorohydrin	12.725	57	6358	19.21	ug/L	95
71) cis-1,3-dichloropropene	12.872	75	12131	3.70	ug/L	96
72) 4-methyl-2-pentanone	12.981	58	19570	14.15	ug/L	92
73) 3-methyl-1-butanol	12.976	55	19181	70.24	ug/L	97
76) toluene	13.290	92	17189	3.63	ug/L	98
77) trans-1,3-dichloropropene	13.483	75	10570	3.61	ug/L	96
78) ethyl methacrylate	13.468	69	10573	3.79	ug/L	93
79) 1,1,2-trichloroethane	13.724	83	5448	3.67	ug/L	96
80) 2-hexanone	13.902	58	18695	16.70	ug/L	95
81) tetrachloroethene	13.902	166	6557	3.56	ug/L	98
82) 1,3-dichloropropane	13.923	76	10780	3.67	ug/L	98
83) butyl acetate	13.991	56	6037	3.75	ug/L #	84
84) dibromochloromethane	14.200	129	6409	3.45	ug/L	97
85) 1,2-dibromoethane	14.373	107	7167	3.91	ug/L	94
86) n-butyl ether	14.854	57	31628	3.80	ug/L	90
87) chlorobenzene	14.911	112	18503	3.99	ug/L	89
88) 1,1,1,2-tetrachloroethane	14.985	131	7513	3.49	ug/L	84
89) ethylbenzene	14.974	91	30238	3.63	ug/L	97
90) m,p-xylene	15.110	106	22758	7.23	ug/L	95
91) o-xylene	15.565	106	12279	3.48	ug/L	96
92) styrene	15.576	104	18446	3.55	ug/L	96
93) butyl acrylate	15.356	55	16606	3.98	ug/L	96
94) n-amyl acetate	15.586	70	7032	3.87	ug/L	99
95) bromoform	15.827	173	4397	3.80	ug/L	89
96) isopropylbenzene	15.952	105	32219	3.47	ug/L	99
97) cis-1,4-dichloro-2-butene	15.989	75	3566	3.41	ug/L	93
100) bromobenzene	16.391	156	6816	3.74	ug/L	98
101) 1,1,2,2-tetrachloroethane	16.261	83	11033	3.90	ug/L	97
102) trans-1,4-dichloro-2-b...	16.292	53	3024	4.16	ug/L	85
103) 1,2,3-trichloropropane	16.360	110	2580	3.53	ug/L	93
104) n-propylbenzene	16.418	91	35426	3.64	ug/L	100
105) 2-chlorotoluene	16.574	126	7004	3.41	ug/L	92
106) 4-chlorotoluene	16.700	91	19998	3.75	ug/L	93
107) 1,3,5-trimethylbenzene	16.595	105	26520	3.39	ug/L	94
108) tert-butylbenzene	16.977	119	22050	3.25	ug/L	94
109) 1,2,4-trimethylbenzene	17.035	105	25555	3.45	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256233.D
 Acq On : 4 Feb 2020 6:09 pm
 Operator : BridgetK
 Sample : ic9958-4
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 05 14:40:06 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

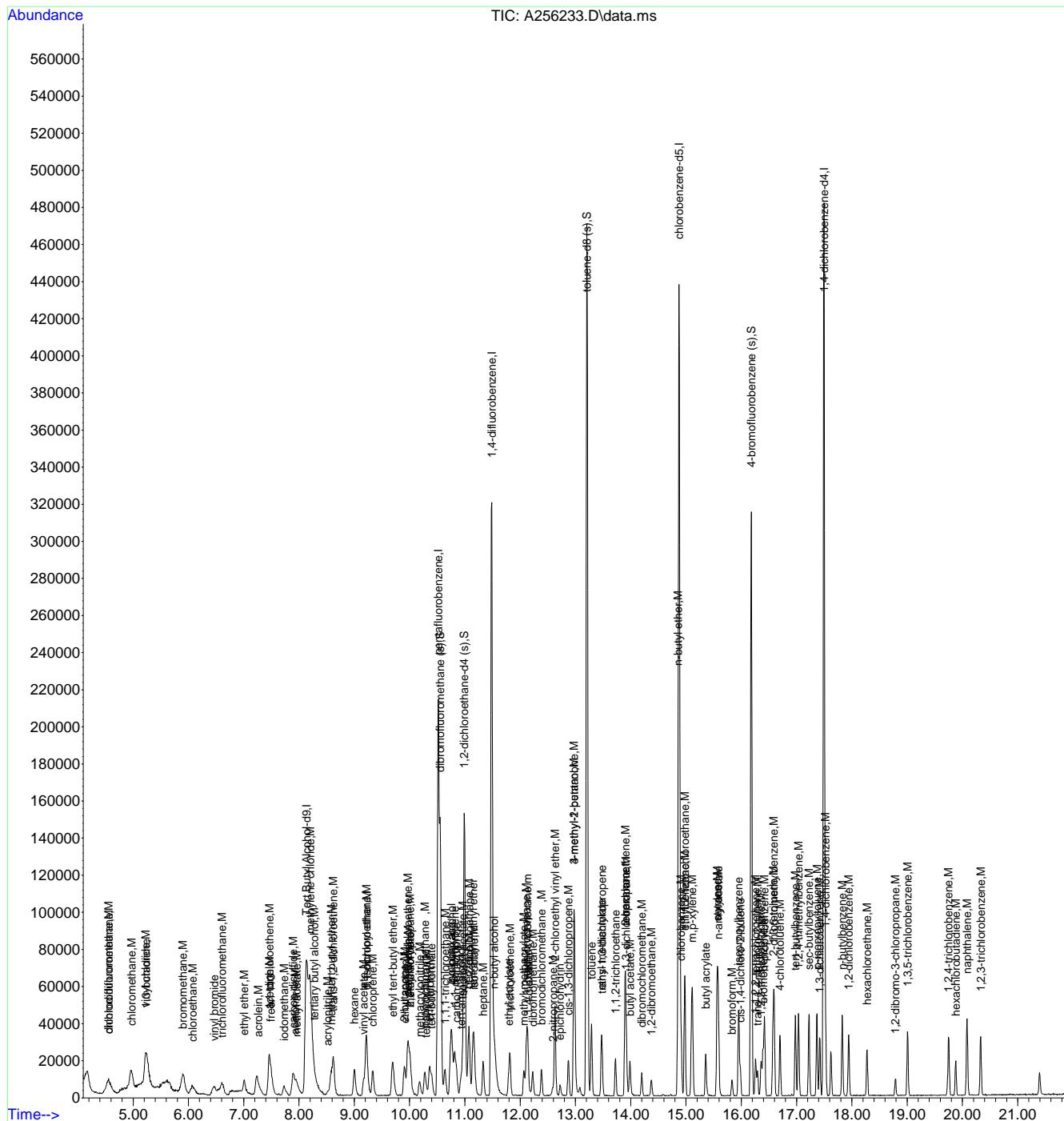
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) sec-butylbenzene	17.228	105	32622	3.18	ug/L	98
111) 1,3-dichlorobenzene	17.417	146	13335	3.79	ug/L	97
112) p-isopropyltoluene	17.369	119	26957	3.33	ug/L	97
113) 1,4-dichlorobenzene	17.526	146	13789	3.85	ug/L	99
114) 1,2-dichlorobenzene	17.945	146	14025	3.77	ug/L	93
115) n-butylbenzene	17.824	92	14167	3.59	ug/L	98
116) 1,2-dibromo-3-chloropr...	18.792	157	2584	3.59	ug/L	96
117) 1,3,5-trichlorobenzene	19.006	180	11254	3.89	ug/L	93
119) 1,2,4-trichlorobenzene	19.749	180	10707	3.89	ug/L	99
120) hexachlorobutadiene	19.875	225	3840	3.68	ug/L	94
121) naphthalene	20.084	128	36151	3.81	ug/L	95
122) 1,2,3-trichlorobenzene	20.330	180	10854	3.75	ug/L	91
123) hexachloroethane	18.274	201	3983	3.24	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
Data File : A256233.D
Acq On : 4 Feb 2020 6:09 pm
Operator : BridgetK
Sample : ic9958-4
Misc : MS40670,VA9958,5,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 05 14:40:06 2020
Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
QLast Update : Wed Feb 05 09:58:31 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256234.D
 Acq On : 4 Feb 2020 6:38 pm
 Operator : BridgetK
 Sample : ic9958-8
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 05 09:59:57 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.141	65	311031	500.00	ug/L	0.00
5) pentafluorobenzene	10.521	168	175866	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.483	114	306992	50.00	ug/L	0.00
74) chlorobenzene-d5	14.878	117	267817	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.493	152	136394	50.00	ug/L	0.00

System Monitoring Compounds						
44) dibromofluoromethane (s)	10.558	113	97539	50.42	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	= 100.84%	
53) 1,2-dichloroethane-d4 (s)	10.992	65	123527	52.30	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	= 104.60%	
75) toluene-d8 (s)	13.209	98	368752	47.00	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	= 94.00%	
99) 4-bromofluorobenzene (s)	16.180	95	122753	52.15	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	= 104.30%	

Target Compounds					Qvalue	
3) tertiary butyl alcohol	8.272	59	28825	39.27	ug/L	97
4) 1,4-dioxane	12.153	88	9339	191.89	ug/L	98
6) chlorodifluoromethane	4.569	51	35649	7.94	ug/L	91
7) dichlorodifluoromethane	4.548	85	39733	8.23	ug/L	97
8) chloromethane	4.962	50	58197	8.89	ug/L	95
9) vinyl chloride	5.228	62	59105	8.79	ug/L	94
10) 1,3-butadiene	5.254	54	27847	8.50	ug/L	96
11) bromomethane	5.903	94	34898	7.71	ug/L	95
12) chloroethane	6.081	64	21628	7.77	ug/L	93
13) vinyl bromide	6.473	106	20601	8.20	ug/L #	95
14) trichlorofluoromethane	6.604	101	34715	8.34	ug/L	92
15) ethyl ether	7.017	74	10071	8.32	ug/L #	81
16) acrolein	7.252	56	4371	7.21	ug/L	89
17) freon 113	7.482	151	13657	7.65	ug/L	98
18) 1,1-dichloroethene	7.472	96	16111	7.90	ug/L	95
19) acetone	7.462	43	34260	31.91	ug/L	94
20) acetonitrile	7.911	41	40356	78.85	ug/L	96
21) iodomethane	7.728	142	23603	7.97	ug/L	95
22) carbon disulfide	7.890	76	49288	7.88	ug/L	98
23) methylene chloride	8.204	84	18782	7.93	ug/L	98
24) methyl acetate	7.964	43	19014	8.09	ug/L	96
25) methyl tert butyl ether	8.591	73	51916	8.03	ug/L	99
26) trans-1,2-dichloroethene	8.623	96	15799	8.22	ug/L	91
27) hexane	9.015	57	20711	8.08	ug/L	97
28) di-isopropyl ether	9.219	45	59525	7.84	ug/L	89
29) ethyl tert-butyl ether	9.695	59	53915	8.15	ug/L	96
30) 2-butanone	9.894	72	12146	28.56	ug/L	94
31) 1,1-dichloroethane	9.219	63	30048	8.02	ug/L	99
32) chloroprene	9.334	53	24161	7.85	ug/L	99
33) acrylonitrile	8.513	53	8403	7.38	ug/L	92
34) vinyl acetate	9.161	86	3762	7.79	ug/L #	74
35) ethyl acetate	9.914	45	3801	7.32	ug/L #	91
36) 2,2-dichloropropane	10.009	77	26936	7.86	ug/L	95
37) cis-1,2-dichloroethene	9.967	96	17782	7.63	ug/L	95
38) methyl acrylate	10.009	85	3142	6.88	ug/L #	83
39) propionitrile	9.972	54	36224	76.47	ug/L	95
40) bromochloromethane	10.270	128	8719	7.87	ug/L	91
41) tetrahydrofuran	10.307	42	8240	7.77	ug/L	99
42) chloroform	10.364	83	28602	8.00	ug/L	99
43) tert-butyl formate	10.406	59	16379	7.74	ug/L	97
45) methacrylonitrile	10.181	67	8566	7.42	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256234.D
 Acq On : 4 Feb 2020 6:38 pm
 Operator : BridgetK
 Sample : ic9958-8
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 05 09:59:57 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cyclohexane	10.767	84	28240	7.92	ug/L	99
47) 1,1,1-trichloroethane	10.636	97	27250	7.65	ug/L	97
48) iso-butyl alcohol	10.751	43	30426	78.51	ug/L	92
49) 1,1-dichloropropene	10.819	75	21596	7.85	ug/L	87
50) carbon tetrachloride	10.845	117	22226	7.56	ug/L	97
51) tert-amyl alcohol	10.940	73	13626	38.62	ug/L	89
54) benzene	11.070	78	65556	7.92	ug/L	97
55) iso-octane	11.170	57	51481	7.25	ug/L	97
56) tert-amyl methyl ether	11.149	73	54040	8.03	ug/L	98
57) heptane	11.327	71	10920	7.53	ug/L	95
58) isopropyl acetate	10.966	87	4843	7.46	ug/L #	82
59) 1,2-dichloroethane	11.086	62	23479	7.92	ug/L	98
60) n-butyl alcohol	11.536	41	44774	376.55	ug/L	89
61) ethyl acrylate	11.787	55	25974	7.77	ug/L	97
62) trichloroethene	11.813	95	15215	7.67	ug/L	92
63) 2-nitropropane	12.587	41	8763	7.79	ug/L	90
64) methylcyclohexane	12.132	83	28673	7.51	ug/L	98
65) 2-chloroethyl vinyl ether	12.629	63	51334	38.78	ug/L	97
66) methyl methacrylate	12.064	100	4652	7.42	ug/L #	83
67) 1,2-dichloropropane	12.111	63	16807	7.67	ug/L	93
68) dibromomethane	12.226	93	10932	7.88	ug/L	96
69) bromodichloromethane	12.383	83	21730	7.69	ug/L	93
70) epichlorohydrin	12.723	57	13660	39.91	ug/L	97
71) cis-1,3-dichloropropene	12.869	75	25518	7.53	ug/L	96
72) 4-methyl-2-pentanone	12.979	58	42561	29.75	ug/L	95
73) 3-methyl-1-butanol	12.974	55	41576	147.26	ug/L	98
76) toluene	13.293	92	37442	7.24	ug/L	97
77) trans-1,3-dichloropropene	13.481	75	23027	7.21	ug/L	98
78) ethyl methacrylate	13.471	69	23066	7.57	ug/L	100
79) 1,1,2-trichloroethane	13.722	83	12440	7.68	ug/L	98
80) 2-hexanone	13.900	58	40377	33.05	ug/L	89
81) tetrachloroethene	13.905	166	14258	7.09	ug/L	97
82) 1,3-dichloropropane	13.926	76	24401	7.61	ug/L	98
83) butyl acetate	13.983	56	14524	8.27	ug/L	99
84) dibromochloromethane	14.198	129	14639	7.22	ug/L	92
85) 1,2-dibromoethane	14.376	107	15532	7.77	ug/L	94
86) n-butyl ether	14.852	57	71072	7.82	ug/L	96
87) chlorobenzene	14.909	112	39588	7.82	ug/L	95
88) 1,1,1,2-tetrachloroethane	14.977	131	16178	6.90	ug/L	93
89) ethylbenzene	14.977	91	69433	7.65	ug/L	100
90) m,p-xylene	15.113	106	52506	15.29	ug/L	97
91) o-xylene	15.563	106	27605	7.16	ug/L	98
92) styrene	15.573	104	42913	7.57	ug/L	96
93) butyl acrylate	15.354	55	37674	8.27	ug/L	98
94) n-amyl acetate	15.589	70	16095	8.12	ug/L	94
95) bromoform	15.835	173	9430	7.47	ug/L	95
96) isopropylbenzene	15.955	105	71635	7.07	ug/L	99
97) cis-1,4-dichloro-2-butene	15.981	75	8150	7.14	ug/L	98
100) bromobenzene	16.395	156	16085	8.03	ug/L	95
101) 1,1,2,2-tetrachloroethane	16.259	83	24409	7.85	ug/L	99
102) trans-1,4-dichloro-2-b...	16.295	53	6718	8.40	ug/L	88
103) 1,2,3-trichloropropane	16.358	110	6640	8.26	ug/L	92
104) n-propylbenzene	16.421	91	81922	7.66	ug/L	98
105) 2-chlorotoluene	16.572	126	16238	7.19	ug/L	96
106) 4-chlorotoluene	16.698	91	45897	7.82	ug/L	99
107) 1,3,5-trimethylbenzene	16.593	105	59323	6.88	ug/L	98
108) tert-butylbenzene	16.980	119	47485	6.37	ug/L	99
109) 1,2,4-trimethylbenzene	17.033	105	57782	7.10	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256234.D
 Acq On : 4 Feb 2020 6:38 pm
 Operator : BridgetK
 Sample : ic9958-8
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 05 09:59:57 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

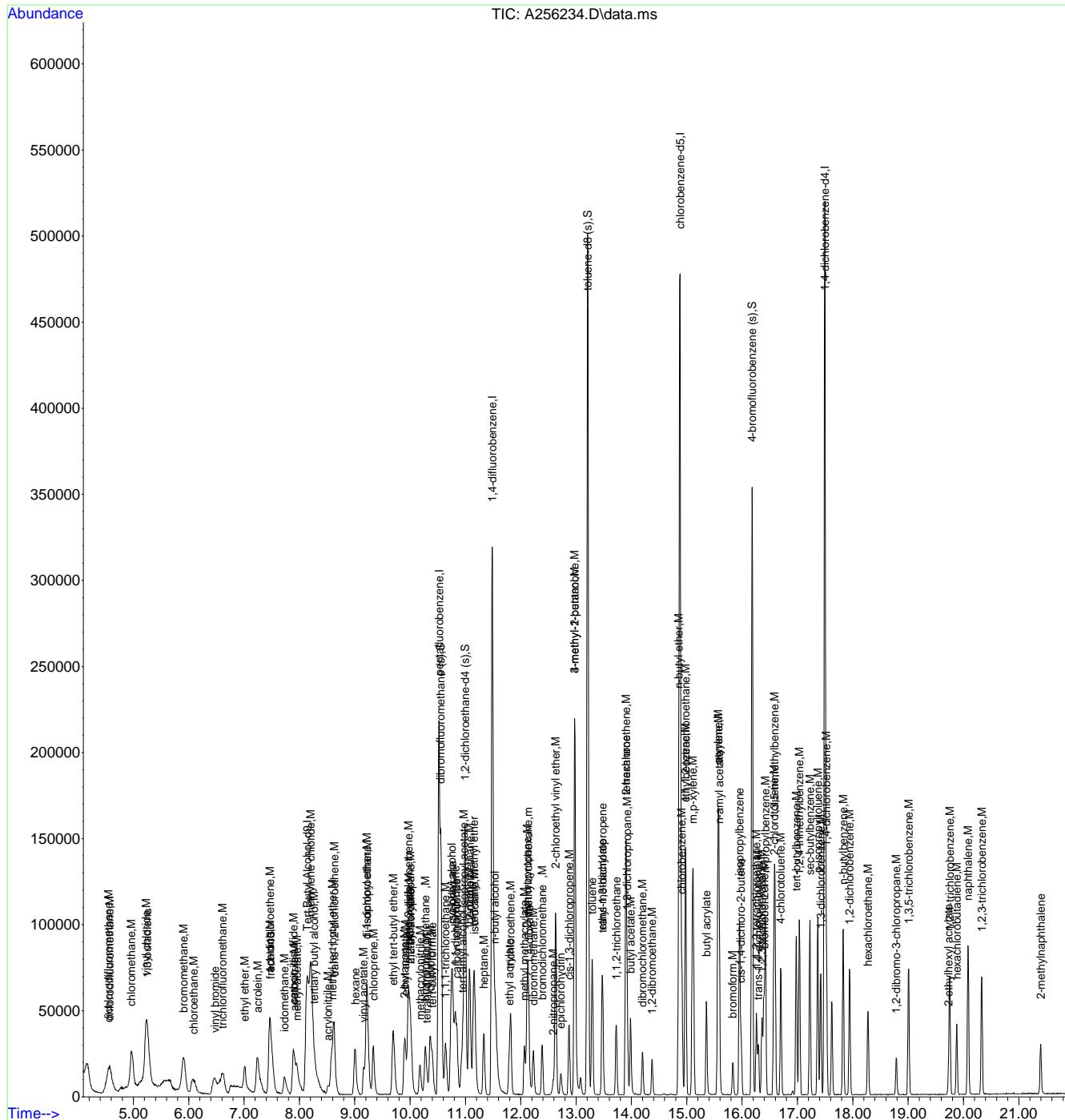
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) sec-butylbenzene	17.226	105	75089	6.64	ug/L	98
111) 1,3-dichlorobenzene	17.420	146	30496	7.87	ug/L	93
112) p-isopropyltoluene	17.367	119	61670	6.92	ug/L	97
113) 1,4-dichlorobenzene	17.524	146	30614	7.76	ug/L	97
114) 1,2-dichlorobenzene	17.943	146	31186	7.63	ug/L	99
115) n-butylbenzene	17.828	92	31553	7.27	ug/L	98
116) 1,2-dibromo-3-chloropr...	18.790	157	6312	7.97	ug/L	92
117) 1,3,5-trichlorobenzene	19.010	180	24269	7.62	ug/L	100
118) 2-ethylhexyl acrylate	19.726	70	3002	1.16	ug/L	90
119) 1,2,4-trichlorobenzene	19.752	180	22969	7.58	ug/L	95
120) hexachlorobutadiene	19.883	225	8569	7.46	ug/L	96
121) naphthalene	20.082	128	74466	7.14	ug/L	98
122) 1,2,3-trichlorobenzene	20.333	180	22710	7.13	ug/L	96
123) hexachloroethane	18.277	201	8320	6.16	ug/L	96
124) 2-methylnaphthalene	21.395	142	17425	3.01	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
Data File : A256234.D
Acq On : 4 Feb 2020 6:38 pm
Operator : BridgetK
Sample : ic9958-8
Misc : MS40670,VA9958,5,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 05 09:59:57 2020
Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
QLast Update : Wed Feb 05 09:58:31 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256235.D
 Acq On : 4 Feb 2020 7:08 pm
 Operator : BridgetK
 Sample : ic9958-20
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 05 10:00:04 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.131	65	328552	500.00	ug/L	0.00
5) pentafluorobenzene	10.521	168	182390	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.484	114	319185	50.00	ug/L	0.00
74) chlorobenzene-d5	14.873	117	258126	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.493	152	126436	50.00	ug/L	0.00

System Monitoring Compounds						
44) dibromofluoromethane (s)	10.558	113	100491	50.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	100.18%		
53) 1,2-dichloroethane-d4 (s)	10.992	65	125594	51.15	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	102.30%		
75) toluene-d8 (s)	13.210	98	373970	49.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	98.90%		
99) 4-bromofluorobenzene (s)	16.180	95	111549	51.12	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	102.24%		

Target Compounds					Qvalue
3) tertiary butyl alcohol	8.262	59	78061	100.68	ug/L
4) 1,4-dioxane	12.158	88	24736	481.15	ug/L
6) chlorodifluoromethane	4.564	51	90868	19.52	ug/L
7) dichlorodifluoromethane	4.543	85	101208	20.22	ug/L
8) chloromethane	4.962	50	142377	20.98	ug/L
9) vinyl chloride	5.229	62	143611	20.60	ug/L
10) 1,3-butadiene	5.244	54	68606	20.20	ug/L
11) bromomethane	5.903	94	89253	19.02	ug/L
12) chloroethane	6.071	64	55830	19.33	ug/L
13) vinyl bromide	6.468	106	52733	20.24	ug/L
14) trichlorofluoromethane	6.615	101	86196	19.96	ug/L
15) ethyl ether	7.012	74	24843	19.79	ug/L
16) acrolein	7.247	56	12312	19.58	ug/L
17) freon 113	7.467	151	35290	19.06	ug/L
18) 1,1-dichloroethene	7.457	96	42559	20.11	ug/L
19) acetone	7.462	43	89390	80.29	ug/L
20) acetonitrile	7.896	41	106668	200.95	ug/L
21) iodomethane	7.723	142	60527	19.72	ug/L
22) carbon disulfide	7.880	76	129984	20.04	ug/L
23) methylene chloride	8.204	84	50003	20.35	ug/L
24) methyl acetate	7.943	43	48844	20.05	ug/L
25) methyl tert butyl ether	8.581	73	133424	19.90	ug/L
26) trans-1,2-dichloroethene	8.618	96	39124	19.63	ug/L
27) hexane	9.005	57	52522	19.77	ug/L
28) di-isopropyl ether	9.214	45	152157	19.31	ug/L
29) ethyl tert-butyl ether	9.690	59	133691	19.50	ug/L
30) 2-butanone	9.894	72	35407	80.28	ug/L #
31) 1,1-dichloroethane	9.219	63	74971	19.29	ug/L
32) chloroprene	9.329	53	60711	19.03	ug/L
33) acrylonitrile	8.513	53	23261	19.70	ug/L
34) vinyl acetate	9.156	86	9866	19.70	ug/L #
35) ethyl acetate	9.904	45	10306	19.15	ug/L #
36) 2,2-dichloropropane	9.998	77	68700	19.32	ug/L
37) cis-1,2-dichloroethene	9.967	96	45991	19.03	ug/L
38) methyl acrylate	9.993	85	9030	19.07	ug/L
39) propionitrile	9.967	54	96969	197.39	ug/L
40) bromochloromethane	10.270	128	21264	18.50	ug/L #
41) tetrahydrofuran	10.297	42	21650	19.68	ug/L
42) chloroform	10.359	83	71462	19.28	ug/L
43) tert-butyl formate	10.396	59	42437	19.35	ug/L
45) methacrylonitrile	10.181	67	23248	19.41	ug/L

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256235.D
 Acq On : 4 Feb 2020 7:08 pm
 Operator : BridgetK
 Sample : ic9958-20
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 05 10:00:04 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cyclohexane	10.757	84	73134	19.77	ug/L	99
47) 1,1,1-trichloroethane	10.637	97	71191	19.27	ug/L	98
48) iso-butyl alcohol	10.752	43	78616	195.61	ug/L	92
49) 1,1-dichloropropene	10.814	75	56496	19.81	ug/L	98
50) carbon tetrachloride	10.846	117	58547	19.19	ug/L	98
51) tert-amyl alcohol	10.935	73	37370	102.13	ug/L	97
54) benzene	11.071	78	170555	19.81	ug/L	99
55) iso-octane	11.170	57	139812	18.94	ug/L	98
56) tert-amyl methyl ether	11.149	73	139378	19.92	ug/L	98
57) heptane	11.332	71	29620	19.65	ug/L	91
58) isopropyl acetate	10.961	87	13309	19.72	ug/L	95
59) 1,2-dichloroethane	11.086	62	62834	20.38	ug/L	99
60) n-butyl alcohol	11.531	41	125751	1017.18	ug/L	93
61) ethyl acrylate	11.782	55	70311	20.22	ug/L	98
62) trichloroethene	11.819	95	39648	19.23	ug/L	99
63) 2-nitropropane	12.587	41	23407	20.02	ug/L	88
64) methylcyclohexane	12.132	83	72840	18.34	ug/L	97
65) 2-chloroethyl vinyl ether	12.629	63	134230	97.52	ug/L	99
66) methyl methacrylate	12.064	100	12189	18.71	ug/L	96
67) 1,2-dichloropropane	12.111	63	43576	19.12	ug/L	97
68) dibromomethane	12.226	93	28215	19.57	ug/L	95
69) bromodichloromethane	12.389	83	57490	19.56	ug/L	98
70) epichlorohydrin	12.723	57	36096	101.43	ug/L	99
71) cis-1,3-dichloropropene	12.870	75	68336	19.40	ug/L	99
72) 4-methyl-2-pentanone	12.974	58	115890	77.92	ug/L	97
73) 3-methyl-1-butanol	12.974	55	116762	397.76	ug/L	98
76) toluene	13.288	92	97281	19.51	ug/L	97
77) trans-1,3-dichloropropene	13.482	75	60175	19.56	ug/L	98
78) ethyl methacrylate	13.466	69	58774	20.03	ug/L	99
79) 1,1,2-trichloroethane	13.722	83	30451	19.51	ug/L	98
80) 2-hexanone	13.900	58	100867	85.66	ug/L	98
81) tetrachloroethene	13.900	166	36775	18.97	ug/L	98
82) 1,3-dichloropropane	13.926	76	61031	19.74	ug/L	97
83) butyl acetate	13.984	56	35451	20.95	ug/L	95
84) dibromochloromethane	14.198	129	37552	19.21	ug/L	96
85) 1,2-dibromoethane	14.371	107	39345	20.42	ug/L	98
86) n-butyl ether	14.852	57	172256	19.67	ug/L	98
87) chlorobenzene	14.910	112	95877	19.64	ug/L	97
88) 1,1,1,2-tetrachloroethane	14.983	131	41808	18.49	ug/L	97
89) ethylbenzene	14.977	91	169522	19.38	ug/L	99
90) m,p-xylene	15.108	106	129618	39.17	ug/L	95
91) o-xylene	15.563	106	69922	18.82	ug/L	98
92) styrene	15.574	104	102923	18.83	ug/L	99
93) butyl acrylate	15.354	55	89204	20.31	ug/L	99
94) n-amyl acetate	15.589	70	38518	20.16	ug/L	97
95) bromoform	15.835	173	23894	19.64	ug/L	99
96) isopropylbenzene	15.956	105	182795	18.72	ug/L	98
97) cis-1,4-dichloro-2-butene	15.987	75	21384	19.43	ug/L	97
100) bromobenzene	16.395	156	37612	20.26	ug/L	93
101) 1,1,2,2-tetrachloroethane	16.259	83	59191	20.53	ug/L	100
102) trans-1,4-dichloro-2-b...	16.290	53	15718	21.20	ug/L	96
103) 1,2,3-trichloropropane	16.358	110	14973	20.10	ug/L	95
104) n-propylbenzene	16.421	91	197002	19.87	ug/L	98
105) 2-chlorotoluene	16.573	126	39600	18.91	ug/L	99
106) 4-chlorotoluene	16.698	91	109249	20.07	ug/L	100
107) 1,3,5-trimethylbenzene	16.594	105	152562	19.10	ug/L	97
108) tert-butylbenzene	16.981	119	127840	18.49	ug/L	100
109) 1,2,4-trimethylbenzene	17.033	105	145652	19.30	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256235.D

Acq On : 4 Feb 2020 7:08 pm

Operator : BridgetK

Sample : ic9958-20

Misc : MS40670,VA9958,5,,,1

ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 05 10:00:04 2020

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M

Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um

QLast Update : Wed Feb 05 09:58:31 2020

Response via : Initial Calibration

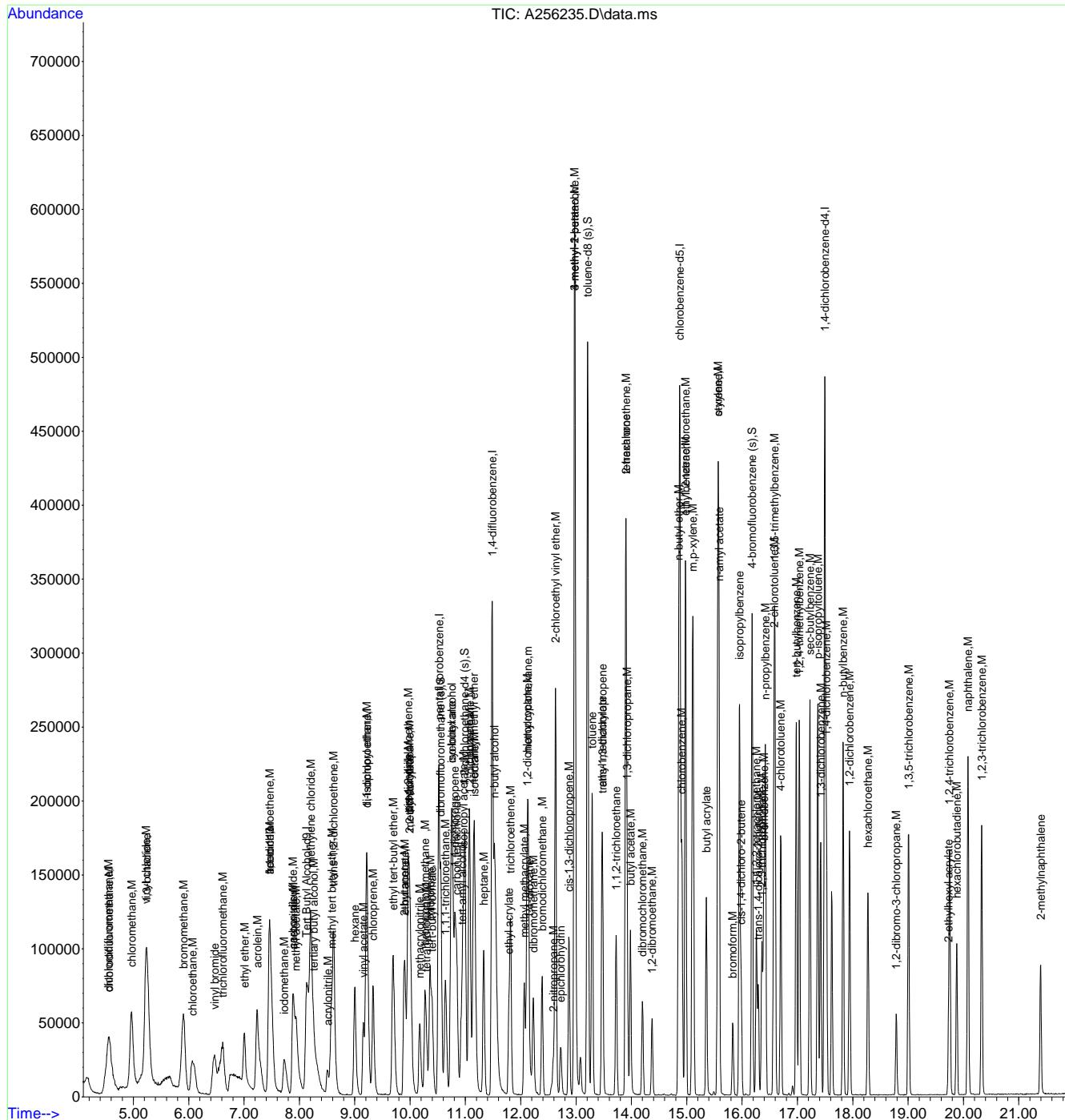
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) sec-butylbenzene	17.226	105	197734	18.87	ug/L	99
111) 1,3-dichlorobenzene	17.420	146	71380	19.87	ug/L	98
112) p-isopropyltoluene	17.368	119	155711	18.85	ug/L	99
113) 1,4-dichlorobenzene	17.525	146	73261	20.04	ug/L	97
114) 1,2-dichlorobenzene	17.943	146	74737	19.72	ug/L	100
115) n-butylbenzene	17.823	92	77550	19.28	ug/L	98
116) 1,2-dibromo-3-chloropr...	18.785	157	15692	21.37	ug/L	91
117) 1,3,5-trichlorobenzene	19.010	180	58818	19.92	ug/L	97
118) 2-ethylhexyl acrylate	19.726	70	9180	3.83	ug/L	96
119) 1,2,4-trichlorobenzene	19.753	180	55696	19.83	ug/L	95
120) hexachlorobutadiene	19.878	225	22193	20.85	ug/L	97
121) naphthalene	20.082	128	196006	20.26	ug/L	98
122) 1,2,3-trichlorobenzene	20.328	180	58938	19.97	ug/L	95
123) hexachloroethane	18.278	201	22893	18.27	ug/L	99
124) 2-methylnaphthalene	21.395	142	50422	9.39	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
Data File : A256235.D
Acq On : 4 Feb 2020 7:08 pm
Operator : BridgetK
Sample : ic9958-20
Misc : MS40670,VA9958,5,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 05 10:00:04 2020
Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
QLast Update : Wed Feb 05 09:58:31 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256236.D
 Acq On : 4 Feb 2020 7:37 pm
 Operator : BridgetK
 Sample : icc9958-50
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 05 10:00:13 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.139	65	337524	500.00	ug/L	0.00
5) pentafluorobenzene	10.519	168	186323	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.481	114	330640	50.00	ug/L	0.00
74) chlorobenzene-d5	14.876	117	271815	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.496	152	135691	50.00	ug/L	0.00

System Monitoring Compounds						
44) dibromofluoromethane (s)	10.556	113	102478	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
53) 1,2-dichloroethane-d4 (s)	10.995	65	127184	50.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.00%			
75) toluene-d8 (s)	13.207	98	398176	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
99) 4-bromofluorobenzene (s)	16.178	95	117082	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			

Target Compounds					Qvalue
3) tertiary butyl alcohol	8.265	59	199130	250.00	ug/L 100
4) 1,4-dioxane	12.156	88	66017	1250.00	ug/L 100
6) chlorodifluoromethane	4.562	51	237821	50.00	ug/L 100
7) dichlorodifluoromethane	4.536	85	255662	50.00	ug/L 100
8) chloromethane	4.959	50	346658	50.00	ug/L 100
9) vinyl chloride	5.226	62	356109	50.00	ug/L 100
10) 1,3-butadiene	5.247	54	173518	50.00	ug/L 100
11) bromomethane	5.895	94	239744	50.00	ug/L 100
12) chloroethane	6.073	64	147540	50.00	ug/L 100
13) vinyl bromide	6.466	106	133102	50.00	ug/L 100
14) trichlorofluoromethane	6.612	101	220626	50.00	ug/L 100
15) ethyl ether	7.004	74	64113	50.00	ug/L 100
16) acrolein	7.234	56	32126	50.00	ug/L 100
17) freon 113	7.475	151	94550	50.00	ug/L 100
18) 1,1-dichloroethene	7.459	96	108099	50.00	ug/L 100
19) acetone	7.449	43	227481	200.00	ug/L 100
20) acetonitrile	7.893	41	271132	500.00	ug/L 100
21) iodomethane	7.731	142	156803	50.00	ug/L 100
22) carbon disulfide	7.888	76	331324	50.00	ug/L 100
23) methylene chloride	8.202	84	125508	50.00	ug/L 100
24) methyl acetate	7.946	43	124454	50.00	ug/L 100
25) methyl tert butyl ether	8.584	73	342432	50.00	ug/L 100
26) trans-1,2-dichloroethene	8.620	96	101786	50.00	ug/L 100
27) hexane	8.997	57	135724	50.00	ug/L 100
28) di-isopropyl ether	9.211	45	402449	50.00	ug/L 100
29) ethyl tert-butyl ether	9.693	59	350256	50.00	ug/L 100
30) 2-butanone	9.886	72	90108	200.00	ug/L 100
31) 1,1-dichloroethane	9.222	63	198511	50.00	ug/L 100
32) chloroprene	9.332	53	162969	50.00	ug/L 100
33) acrylonitrile	8.500	53	60304	50.00	ug/L 100
34) vinyl acetate	9.149	86	25584	50.00	ug/L 100
35) ethyl acetate	9.907	45	27495	50.00	ug/L 100
36) 2,2-dichloropropane	10.001	77	181609	50.00	ug/L 100
37) cis-1,2-dichloroethene	9.965	96	123463	50.00	ug/L 100
38) methyl acrylate	10.001	85	24181	50.00	ug/L 100
39) propionitrile	9.959	54	250925	500.00	ug/L 100
40) bromochloromethane	10.273	128	58698	50.00	ug/L 100
41) tetrahydrofuran	10.299	42	56200	50.00	ug/L 100
42) chloroform	10.357	83	189301	50.00	ug/L 100
43) tert-butyl formate	10.399	59	112032	50.00	ug/L 100
45) methacrylonitrile	10.169	67	61163	50.00	ug/L 100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256236.D
 Acq On : 4 Feb 2020 7:37 pm
 Operator : BridgetK
 Sample : icc9958-50
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 05 10:00:13 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cyclohexane	10.759	84	188993	50.00	ug/L	100
47) 1,1,1-trichloroethane	10.639	97	188686	50.00	ug/L	100
48) iso-butyl alcohol	10.754	43	205285	500.00	ug/L	100
49) 1,1-dichloropropene	10.812	75	145646	50.00	ug/L	100
50) carbon tetrachloride	10.848	117	155827	50.00	ug/L	100
51) tert-amyl alcohol	10.937	73	93452	250.00	ug/L	100
54) benzene	11.068	78	445850	50.00	ug/L	100
55) iso-octane	11.173	57	382420	50.00	ug/L	100
56) tert-amyl methyl ether	11.147	73	362363	50.00	ug/L	100
57) heptane	11.330	71	78065	50.00	ug/L	100
58) isopropyl acetate	10.958	87	34951	50.00	ug/L	100
59) 1,2-dichloroethane	11.084	62	159651	50.00	ug/L	100
60) n-butyl alcohol	11.534	41	320160	2500.00	ug/L	100
61) ethyl acrylate	11.785	55	180082	50.00	ug/L	100
62) trichloroethene	11.816	95	106813	50.00	ug/L	100
63) 2-nitropropane	12.590	41	60558	50.00	ug/L	100
64) methylcyclohexane	12.135	83	205716	50.00	ug/L	100
65) 2-chloroethyl vinyl ether	12.627	63	356454	250.00	ug/L	100
66) methyl methacrylate	12.062	100	33749	50.00	ug/L	100
67) 1,2-dichloropropane	12.109	63	118044	50.00	ug/L	100
68) dibromomethane	12.229	93	74663	50.00	ug/L	100
69) bromodichloromethane	12.386	83	152253	50.00	ug/L	100
70) epichlorohydrin	12.721	57	92161	250.00	ug/L	100
71) cis-1,3-dichloropropene	12.872	75	182436	50.00	ug/L	100
72) 4-methyl-2-pentanone	12.972	58	308115	200.00	ug/L	100
73) 3-methyl-1-butanol	12.972	55	304081	1000.00	ug/L	100
76) toluene	13.291	92	262491	50.00	ug/L	100
77) trans-1,3-dichloropropene	13.479	75	161996	50.00	ug/L	100
78) ethyl methacrylate	13.463	69	154526	50.00	ug/L	100
79) 1,1,2-trichloroethane	13.725	83	82158	50.00	ug/L	100
80) 2-hexanone	13.898	58	247989	200.00	ug/L	100
81) tetrachloroethene	13.903	166	102071	50.00	ug/L	100
82) 1,3-dichloropropane	13.924	76	162755	50.00	ug/L	100
83) butyl acetate	13.981	56	89080	50.00	ug/L	100
84) dibromochloromethane	14.201	129	102923	50.00	ug/L	100
85) 1,2-dibromoethane	14.374	107	101437	50.00	ug/L	100
86) n-butyl ether	14.849	57	461036	50.00	ug/L	100
87) chlorobenzene	14.912	112	256999	50.00	ug/L	100
88) 1,1,1,2-tetrachloroethane	14.980	131	119024	50.00	ug/L	100
89) ethylbenzene	14.975	91	460625	50.00	ug/L	100
90) m,p-xylene	15.111	106	348461	100.00	ug/L	100
91) o-xylene	15.561	106	195602	50.00	ug/L	100
92) styrene	15.571	104	287835	50.00	ug/L	100
93) butyl acrylate	15.352	55	231229	50.00	ug/L	100
94) n-amyl acetate	15.587	70	100607	50.00	ug/L	100
95) bromoform	15.833	173	64061	50.00	ug/L	100
96) isopropylbenzene	15.953	105	514195	50.00	ug/L	100
97) cis-1,4-dichloro-2-butene	15.984	75	57952	50.00	ug/L	100
100) bromobenzene	16.392	156	99605	50.00	ug/L	100
101) 1,1,2,2-tetrachloroethane	16.256	83	154742	50.00	ug/L	100
102) trans-1,4-dichloro-2-b...	16.293	53	39783	50.00	ug/L	100
103) 1,2,3-trichloropropane	16.356	110	39980	50.00	ug/L	100
104) n-propylbenzene	16.419	91	532062	50.00	ug/L	100
105) 2-chlorotoluene	16.575	126	112374	50.00	ug/L	100
106) 4-chlorotoluene	16.701	91	292037	50.00	ug/L	100
107) 1,3,5-trimethylbenzene	16.591	105	428711	50.00	ug/L	100
108) tert-butylbenzene	16.978	119	370961	50.00	ug/L	100
109) 1,2,4-trimethylbenzene	17.036	105	404986	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256236.D
 Acq On : 4 Feb 2020 7:37 pm
 Operator : BridgetK
 Sample : icc9958-50
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 05 10:00:13 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

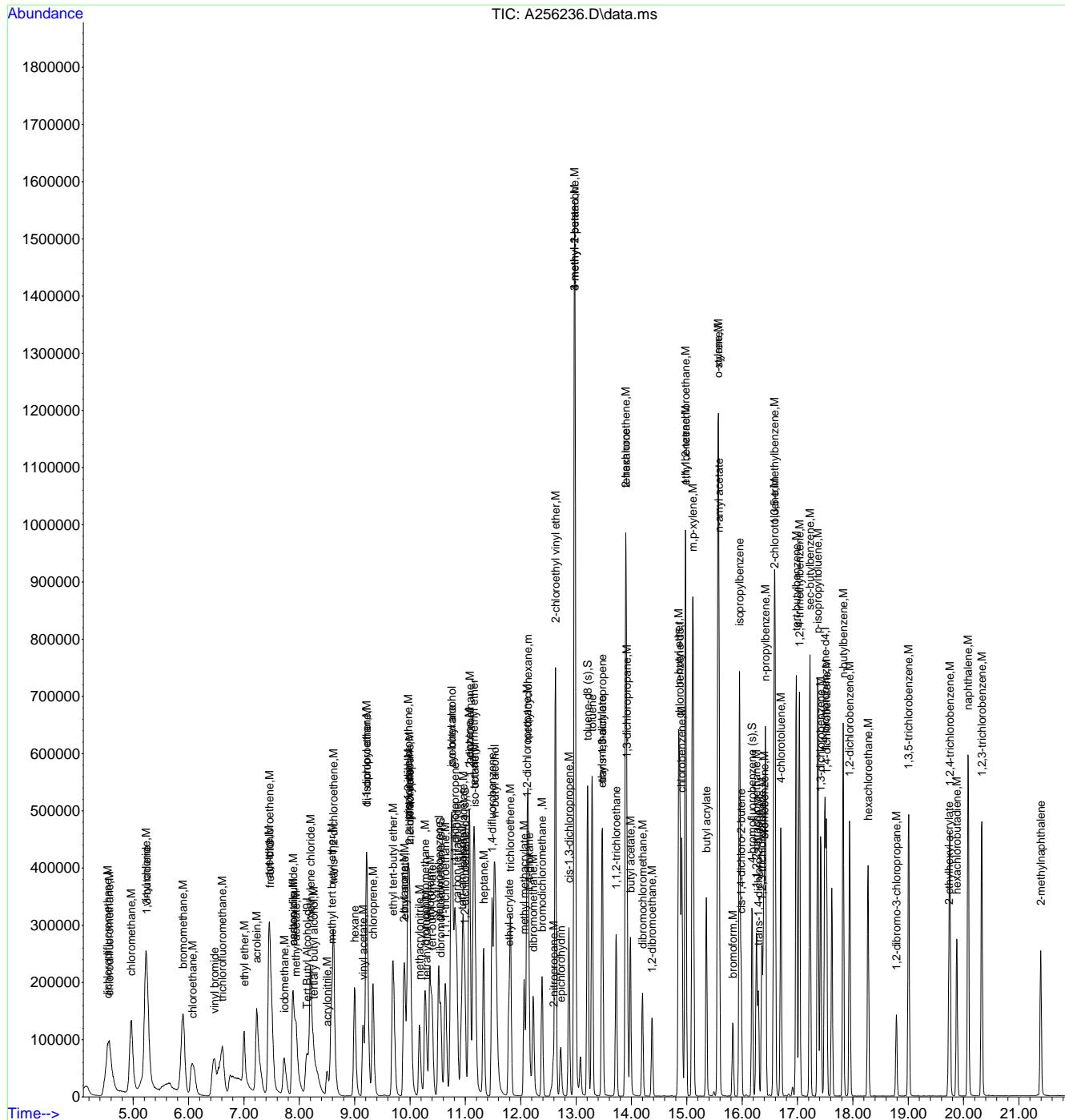
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) sec-butylbenzene	17.224	105	562179	50.00	ug/L	100
111) 1,3-dichlorobenzene	17.417	146	192773	50.00	ug/L	100
112) p-isopropyltoluene	17.365	119	443216	50.00	ug/L	100
113) 1,4-dichlorobenzene	17.522	146	196155	50.00	ug/L	100
114) 1,2-dichlorobenzene	17.940	146	203410	50.00	ug/L	100
115) n-butylbenzene	17.825	92	215799	50.00	ug/L	100
116) 1,2-dibromo-3-chloropr...	18.788	157	39406	50.00	ug/L	100
117) 1,3,5-trichlorobenzene	19.007	180	158452	50.00	ug/L	100
118) 2-ethylhexyl acrylate	19.729	70	25746	10.00	ug/L	100
119) 1,2,4-trichlorobenzene	19.750	180	150684	50.00	ug/L	100
120) hexachlorobutadiene	19.881	225	57110	50.00	ug/L	100
121) naphthalene	20.085	128	519086	50.00	ug/L	100
122) 1,2,3-trichlorobenzene	20.331	180	158377	50.00	ug/L	100
123) hexachloroethane	18.275	201	67230	50.00	ug/L	100
124) 2-methylnaphthalene	21.392	142	144132	25.00	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
Data File : A256236.D
Acq On : 4 Feb 2020 7:37 pm
Operator : BridgetK
Sample : icc9958-50
Misc : MS40670,VA9958,,5,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 05 10:00:13 2020
Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
QLast Update : Wed Feb 05 09:58:31 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256237.D
 Acq On : 4 Feb 2020 8:07 pm
 Operator : BridgetK
 Sample : ic9958-100
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 05 10:00:24 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.154	65	365671	500.00	ug/L	0.02
5) pentafluorobenzene	10.518	168	196078	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.486	114	348783	50.00	ug/L	0.00
74) chlorobenzene-d5	14.875	117	324824	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.495	152	164517	50.00	ug/L	0.00

System Monitoring Compounds						
44) dibromofluoromethane (s)	10.555	113	109595	50.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.62%			
53) 1,2-dichloroethane-d4 (s)	10.994	65	135307	50.43	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.86%			
75) toluene-d8 (s)	13.212	98	434602	45.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.34%			
99) 4-bromofluorobenzene (s)	16.177	95	146458	51.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.18%			

Target Compounds						Qvalue
3) tertiary butyl alcohol	8.275	59	459852	532.89	ug/L	97
4) 1,4-dioxane	12.161	88	160317	2801.87	ug/L	100
6) chlorodifluoromethane	4.566	51	504278	100.75	ug/L	95
7) dichlorodifluoromethane	4.556	85	534796	99.39	ug/L	99
8) chloromethane	4.974	50	698830	95.78	ug/L	100
9) vinyl chloride	5.241	62	734658	98.02	ug/L	95
10) 1,3-butadiene	5.257	54	392313	107.42	ug/L	98
11) bromomethane	5.905	94	518910	102.84	ug/L	98
12) chloroethane	6.062	64	350810	112.97	ug/L	96
13) vinyl bromide	6.470	106	291068	103.90	ug/L	100
14) trichlorofluoromethane	6.617	101	483473	104.12	ug/L	98
15) ethyl ether	7.004	74	146870	108.84	ug/L	95
16) acrolein	7.234	56	75425	111.55	ug/L	95
17) freon 113	7.480	151	220853	110.98	ug/L	99
18) 1,1-dichloroethene	7.459	96	262645	115.44	ug/L	95
19) acetone	7.453	43	523804	437.61	ug/L	99
20) acetonitrile	7.887	41	612409	1073.17	ug/L	98
21) iodomethane	7.731	142	376428	114.06	ug/L	98
22) carbon disulfide	7.887	76	793411	113.78	ug/L	97
23) methylene chloride	8.207	84	299169	113.25	ug/L	98
24) methyl acetate	7.945	43	284776	108.72	ug/L	98
25) methyl tert butyl ether	8.588	73	779424	108.15	ug/L	99
26) trans-1,2-dichloroethene	8.620	96	238417	111.29	ug/L	98
27) hexane	9.002	57	303568	106.27	ug/L	99
28) di-isopropyl ether	9.216	45	916814	108.24	ug/L	98
29) ethyl tert-butyl ether	9.692	59	784854	106.47	ug/L	99
30) 2-butanone	9.891	72	211993	447.12	ug/L	96
31) 1,1-dichloroethane	9.221	63	453221	108.48	ug/L	98
32) chloroprene	9.331	53	372512	108.60	ug/L	98
33) acrylonitrile	8.499	53	139323	109.77	ug/L	96
34) vinyl acetate	9.153	86	58164	108.02	ug/L #	90
35) ethyl acetate	9.912	45	63655	110.00	ug/L #	79
36) 2,2-dichloropropane	10.006	77	414150	108.35	ug/L	100
37) cis-1,2-dichloroethene	9.964	96	285092	109.71	ug/L	99
38) methyl acrylate	9.995	85	56307	110.64	ug/L #	86
39) propionitrile	9.964	54	587362	1112.17	ug/L	95
40) bromochloromethane	10.272	128	136940	110.84	ug/L	97
41) tetrahydrofuran	10.299	42	130336	110.19	ug/L	99
42) chloroform	10.361	83	427109	107.20	ug/L	96
43) tert-butyl formate	10.398	59	256242	108.67	ug/L	99
45) methacrylonitrile	10.173	67	143085	111.15	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256237.D
 Acq On : 4 Feb 2020 8:07 pm
 Operator : BridgetK
 Sample : ic9958-100
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 05 10:00:24 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cyclohexane	10.764	84	426270	107.16	ug/L	99
47) 1,1,1-trichloroethane	10.644	97	430691	108.45	ug/L	97
48) iso-butyl alcohol	10.754	43	480720	1112.61	ug/L	95
49) 1,1-dichloropropene	10.811	75	331567	108.16	ug/L	98
50) carbon tetrachloride	10.848	117	363070	110.70	ug/L	100
51) tert-amyl alcohol	10.931	73	220914	561.58	ug/L	98
54) benzene	11.067	78	1007578	107.12	ug/L	99
55) iso-octane	11.177	57	887054	109.95	ug/L	99
56) tert-amyl methyl ether	11.151	73	810748	106.05	ug/L	100
57) heptane	11.329	71	173007	105.05	ug/L	98
58) isopropyl acetate	10.963	87	79625	107.98	ug/L	99
59) 1,2-dichloroethane	11.083	62	359734	106.80	ug/L	100
60) n-butyl alcohol	11.533	41	783986	5803.38	ug/L	98
61) ethyl acrylate	11.784	55	437147	115.06	ug/L	99
62) trichloroethene	11.815	95	244975	108.71	ug/L	98
63) 2-nitropropane	12.589	41	145109	113.58	ug/L	94
64) methylcyclohexane	12.134	83	477566	110.04	ug/L	98
65) 2-chloroethyl vinyl ether	12.626	63	867407	576.71	ug/L	99
66) methyl methacrylate	12.061	100	81391	114.31	ug/L	96
67) 1,2-dichloropropane	12.113	63	270713	108.70	ug/L	98
68) dibromomethane	12.223	93	171035	108.58	ug/L	99
69) bromodichloromethane	12.385	83	344591	107.28	ug/L	98
70) epichlorohydrin	12.720	57	226974	583.67	ug/L	99
71) cis-1,3-dichloropropene	12.872	75	419909	109.10	ug/L	99
72) 4-methyl-2-pentanone	12.976	58	753230	463.49	ug/L	97
73) 3-methyl-1-butanol	12.976	55	769040	2397.51	ug/L	99
76) toluene	13.290	92	619254	98.71	ug/L	97
77) trans-1,3-dichloropropene	13.479	75	394051	101.78	ug/L	98
78) ethyl methacrylate	13.468	69	390983	105.86	ug/L	99
79) 1,1,2-trichloroethane	13.724	83	197397	100.53	ug/L	98
80) 2-hexanone	13.897	58	681615	460.00	ug/L	98
81) tetrachloroethene	13.902	166	251454	103.07	ug/L	99
82) 1,3-dichloropropane	13.923	76	399024	102.58	ug/L	100
83) butyl acetate	13.981	56	238438	111.99	ug/L	95
84) dibromochloromethane	14.200	129	248705	101.10	ug/L	99
85) 1,2-dibromoethane	14.373	107	255332	105.32	ug/L	98
86) n-butyl ether	14.854	57	1123751	101.98	ug/L	100
87) chlorobenzene	14.912	112	650057	105.83	ug/L	99
88) 1,1,1,2-tetrachloroethane	14.980	131	282891	99.44	ug/L	98
89) ethylbenzene	14.974	91	1144737	103.98	ug/L	98
90) m,p-xylene	15.110	106	884984	212.52	ug/L	96
91) o-xylene	15.565	106	494804	105.84	ug/L	96
92) styrene	15.571	104	775171	112.68	ug/L	98
93) butyl acrylate	15.351	55	606289	109.71	ug/L	99
94) n-amyl acetate	15.586	70	266090	110.66	ug/L	99
95) bromoform	15.832	173	172398	112.60	ug/L	99
96) isopropylbenzene	15.952	105	1234786	100.48	ug/L	99
97) cis-1,4-dichloro-2-butene	15.984	75	150166	108.42	ug/L	98
100) bromobenzene	16.392	156	267244	110.65	ug/L	99
101) 1,1,2,2-tetrachloroethane	16.261	83	383670	102.25	ug/L	98
102) trans-1,4-dichloro-2-b...	16.292	53	101411	105.12	ug/L	98
103) 1,2,3-trichloropropane	16.360	110	100424	103.59	ug/L	95
104) n-propylbenzene	16.423	91	1304879	101.14	ug/L	98
105) 2-chlorotoluene	16.575	126	288241	105.78	ug/L	99
106) 4-chlorotoluene	16.700	91	755537	106.69	ug/L	99
107) 1,3,5-trimethylbenzene	16.596	105	1051289	101.13	ug/L	96
108) tert-butylbenzene	16.977	119	878679	97.68	ug/L	99
109) 1,2,4-trimethylbenzene	17.035	105	1020204	103.89	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256237.D
 Acq On : 4 Feb 2020 8:07 pm
 Operator : BridgetK
 Sample : ic9958-100
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 05 10:00:24 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

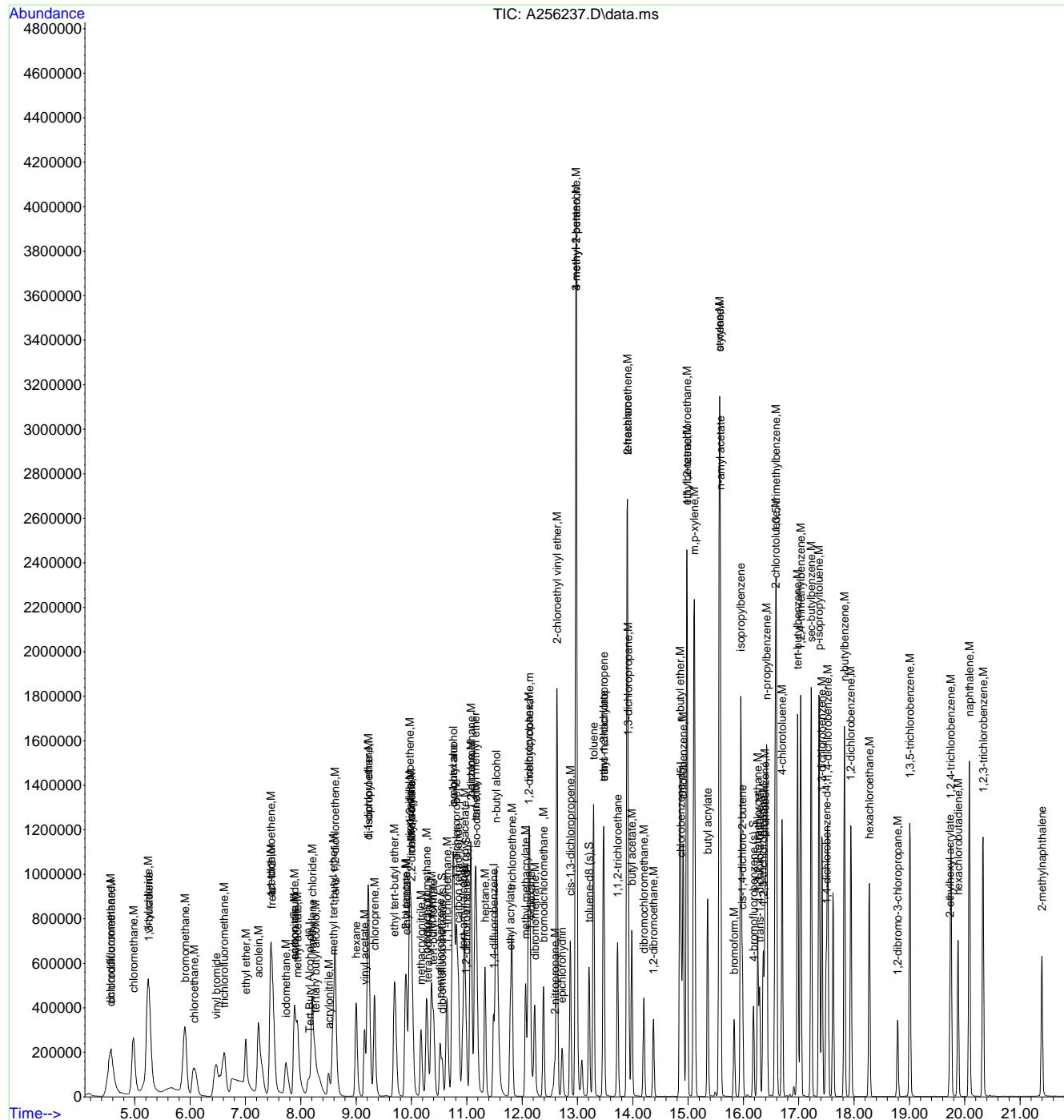
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) sec-butylbenzene	17.223	105	1350017	99.03	ug/L	98
111) 1,3-dichlorobenzene	17.422	146	508499	108.78	ug/L	95
112) p-isopropyltoluene	17.370	119	1110443	103.32	ug/L	98
113) 1,4-dichlorobenzene	17.527	146	508377	106.88	ug/L	99
114) 1,2-dichlorobenzene	17.945	146	527709	106.99	ug/L	99
115) n-butylbenzene	17.825	92	541071	103.40	ug/L	98
116) 1,2-dibromo-3-chloropr...	18.787	157	99458	104.08	ug/L	97
117) 1,3,5-trichlorobenzene	19.007	180	391868	101.99	ug/L	99
118) 2-ethylhexyl acrylate	19.729	70	67647	21.67	ug/L	96
119) 1,2,4-trichlorobenzene	19.749	180	373369	102.18	ug/L	100
120) hexachlorobutadiene	19.880	225	150448	108.64	ug/L	97
121) naphthalene	20.084	128	1264375	100.45	ug/L	100
122) 1,2,3-trichlorobenzene	20.330	180	389951	101.54	ug/L	95
123) hexachloroethane	18.275	201	164108	100.66	ug/L	98
124) 2-methylnaphthalene	21.392	142	360822	51.62	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256237.D
 Acq On : 4 Feb 2020 8:07 pm
 Operator : BridgetK
 Sample : ic9958-100
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 05 10:00:24 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256238.D
 Acq On : 4 Feb 2020 8:36 pm
 Operator : BridgetK
 Sample : ic9958-200
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 05 10:00:31 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.152	65	351883	500.00	ug/L	0.01
5) pentafluorobenzene	10.516	168	220919	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.484	114	388449	50.00	ug/L	0.00
74) chlorobenzene-d5	14.873	117	368820	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.493	152	182479	50.00	ug/L	0.00

System Monitoring Compounds						
44) dibromofluoromethane (s)	10.558	113	119297	49.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	98.18%		
53) 1,2-dichloroethane-d4 (s)	10.992	65	142172	47.57	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	95.14%		
75) toluene-d8 (s)	13.210	98	478109	44.25	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	88.50%		
99) 4-bromofluorobenzene (s)	16.181	95	160956	51.11	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	102.22%		

Target Compounds						Qvalue
3) tertiary butyl alcohol	8.273	59	885293	1066.10	ug/L	98
4) 1,4-dioxane	12.159	88	313795	5699.10	ug/L	99
6) chlorodifluoromethane	4.564	51	973140	172.56	ug/L	98
7) dichlorodifluoromethane	4.554	85	1088975	179.62	ug/L	100
8) chloromethane	4.967	50	1392513	169.40	ug/L	100
9) vinyl chloride	5.234	62	1488318	176.24	ug/L	97
10) 1,3-butadiene	5.250	54	763093	185.45	ug/L	98
11) bromomethane	5.903	94	835651	146.99	ug/L	96
12) chloroethane	6.071	64	720742	206.00	ug/L	99
13) vinyl bromide	6.468	106	619661	196.32	ug/L	99
14) trichlorofluoromethane	6.609	101	1026358	196.18	ug/L	99
15) ethyl ether	7.007	74	302347	198.87	ug/L	97
16) acrolein	7.237	56	152233	199.83	ug/L	90
17) freon 113	7.483	151	464506	207.17	ug/L	99
18) 1,1-dichloroethene	7.457	96	552831	215.66	ug/L	97
19) acetone	7.457	43	1051411	779.63	ug/L	99
20) acetonitrile	7.891	41	1210842	1883.26	ug/L	99
21) iodomethane	7.729	142	784145	210.88	ug/L	99
22) carbon disulfide	7.886	76	1604274	204.19	ug/L	100
23) methylene chloride	8.205	84	616206	207.04	ug/L	100
24) methyl acetate	7.943	43	570391	193.27	ug/L	98
25) methyl tert butyl ether	8.586	73	1572423	193.64	ug/L	99
26) trans-1,2-dichloroethene	8.618	96	494318	204.80	ug/L	100
27) hexane	9.000	57	628513	195.28	ug/L	99
28) di-isopropyl ether	9.214	45	1900743	199.17	ug/L	99
29) ethyl tert-butyl ether	9.695	59	1584738	190.80	ug/L	99
30) 2-butanone	9.894	72	432313	809.28	ug/L	90
31) 1,1-dichloroethane	9.219	63	946747	201.12	ug/L	100
32) chloroprene	9.329	53	774891	200.51	ug/L	98
33) acrylonitrile	8.498	53	284947	199.26	ug/L	95
34) vinyl acetate	9.151	86	123779	204.02	ug/L #	92
35) ethyl acetate	9.910	45	132073	202.56	ug/L	96
36) 2,2-dichloropropane	10.009	77	850086	197.39	ug/L	99
37) cis-1,2-dichloroethene	9.967	96	607344	207.44	ug/L	98
38) methyl acrylate	9.999	85	117483	204.88	ug/L	94
39) propionitrile	9.967	54	1187447	1995.60	ug/L	92
40) bromochloromethane	10.276	128	292333	210.02	ug/L	94
41) tetrahydrofuran	10.297	42	266452	199.93	ug/L	99
42) chloroform	10.359	83	904990	201.60	ug/L	97
43) tert-butyl formate	10.401	59	523701	197.13	ug/L	98
45) methacrylonitrile	10.171	67	295576	203.79	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256238.D
 Acq On : 4 Feb 2020 8:36 pm
 Operator : BridgetK
 Sample : ic9958-200
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 05 10:00:31 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cyclohexane	10.762	84	909841	203.01	ug/L	97
47) 1,1,1-trichloroethane	10.642	97	907852	202.90	ug/L	96
48) iso-butyl alcohol	10.752	43	986868	2027.24	ug/L	96
49) 1,1-dichloropropene	10.814	75	706242	204.48	ug/L	97
50) carbon tetrachloride	10.846	117	772770	209.13	ug/L	99
51) tert-amyl alcohol	10.935	73	432540	975.91	ug/L	99
54) benzene	11.065	78	2102758	200.72	ug/L	98
55) iso-octane	11.175	57	1861321	207.14	ug/L	98
56) tert-amyl methyl ether	11.149	73	1624170	190.76	ug/L	99
57) heptane	11.327	71	365057	199.02	ug/L	99
58) isopropyl acetate	10.961	87	166301	202.50	ug/L #	91
59) 1,2-dichloroethane	11.081	62	750872	200.16	ug/L	100
60) n-butyl alcohol	11.536	41	1530776	10174.33	ug/L	97
61) ethyl acrylate	11.782	55	909595	214.97	ug/L	99
62) trichloroethene	11.813	95	533212	212.46	ug/L	98
63) 2-nitropropane	12.593	41	306591	215.47	ug/L	97
64) methylcyclohexane	12.138	83	1026290	212.32	ug/L	99
65) 2-chloroethyl vinyl ether	12.629	63	1867347	1114.76	ug/L	97
66) methyl methacrylate	12.064	100	174779	220.40	ug/L	93
67) 1,2-dichloropropane	12.112	63	580805	209.40	ug/L	100
68) dibromomethane	12.227	93	366819	209.09	ug/L	95
69) bromodichloromethane	12.383	83	739995	206.85	ug/L	98
70) epichlorohydrin	12.723	57	457893	1057.25	ug/L	99
71) cis-1,3-dichloropropene	12.870	75	891350	207.94	ug/L	98
72) 4-methyl-2-pentanone	12.974	58	1591770	879.47	ug/L	90
73) 3-methyl-1-butanol	12.974	55	1578916	4419.68	ug/L	98
76) toluene	13.288	92	1337287	187.73	ug/L	93
77) trans-1,3-dichloropropene	13.482	75	848342	192.97	ug/L	97
78) ethyl methacrylate	13.466	69	840387	200.40	ug/L	99
79) 1,1,2-trichloroethane	13.722	83	421922	189.24	ug/L	98
80) 2-hexanone	13.900	58	1419358	843.62	ug/L	98
81) tetrachloroethene	13.905	166	586172	211.62	ug/L	99
82) 1,3-dichloropropane	13.926	76	865444	195.94	ug/L	99
83) butyl acetate	13.984	56	488625	202.13	ug/L	95
84) dibromochloromethane	14.204	129	553171	198.05	ug/L	99
85) 1,2-dibromoethane	14.371	107	556236	202.07	ug/L	98
86) n-butyl ether	14.852	57	2351387	187.94	ug/L	98
87) chlorobenzene	14.910	112	1433542	205.55	ug/L	98
88) 1,1,1,2-tetrachloroethane	14.983	131	645160	199.74	ug/L	99
89) ethylbenzene	14.978	91	2481484	198.51	ug/L	93
90) m,p-xylene	15.108	106	1976715	418.07	ug/L	90
91) o-xylene	15.563	106	1123664	211.69	ug/L	92
92) styrene	15.574	104	1756773	224.91	ug/L	99
93) butyl acrylate	15.354	55	1247923	198.87	ug/L	98
94) n-amyl acetate	15.584	70	558298	204.49	ug/L	99
95) bromoform	15.835	173	389537	224.07	ug/L	99
96) isopropylbenzene	15.956	105	2630541	188.52	ug/L	96
97) cis-1,4-dichloro-2-butene	15.982	75	315371	200.53	ug/L	98
100) bromobenzene	16.395	156	601513	224.53	ug/L	96
101) 1,1,2,2-tetrachloroethane	16.259	83	810969	194.85	ug/L	98
102) trans-1,4-dichloro-2-b...	16.290	53	204792	191.39	ug/L	98
103) 1,2,3-trichloropropane	16.358	110	215360	200.28	ug/L	99
104) n-propylbenzene	16.421	91	2755473	192.55	ug/L	95
105) 2-chlorotoluene	16.578	126	656320	217.15	ug/L	92
106) 4-chlorotoluene	16.698	91	1644854	209.41	ug/L	97
107) 1,3,5-trimethylbenzene	16.594	105	2309740	200.31	ug/L	94
108) tert-butylbenzene	16.981	119	1928297	193.27	ug/L	99
109) 1,2,4-trimethylbenzene	17.033	105	2217331	203.56	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256238.D
 Acq On : 4 Feb 2020 8:36 pm
 Operator : BridgetK
 Sample : ic9958-200
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 05 10:00:31 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration

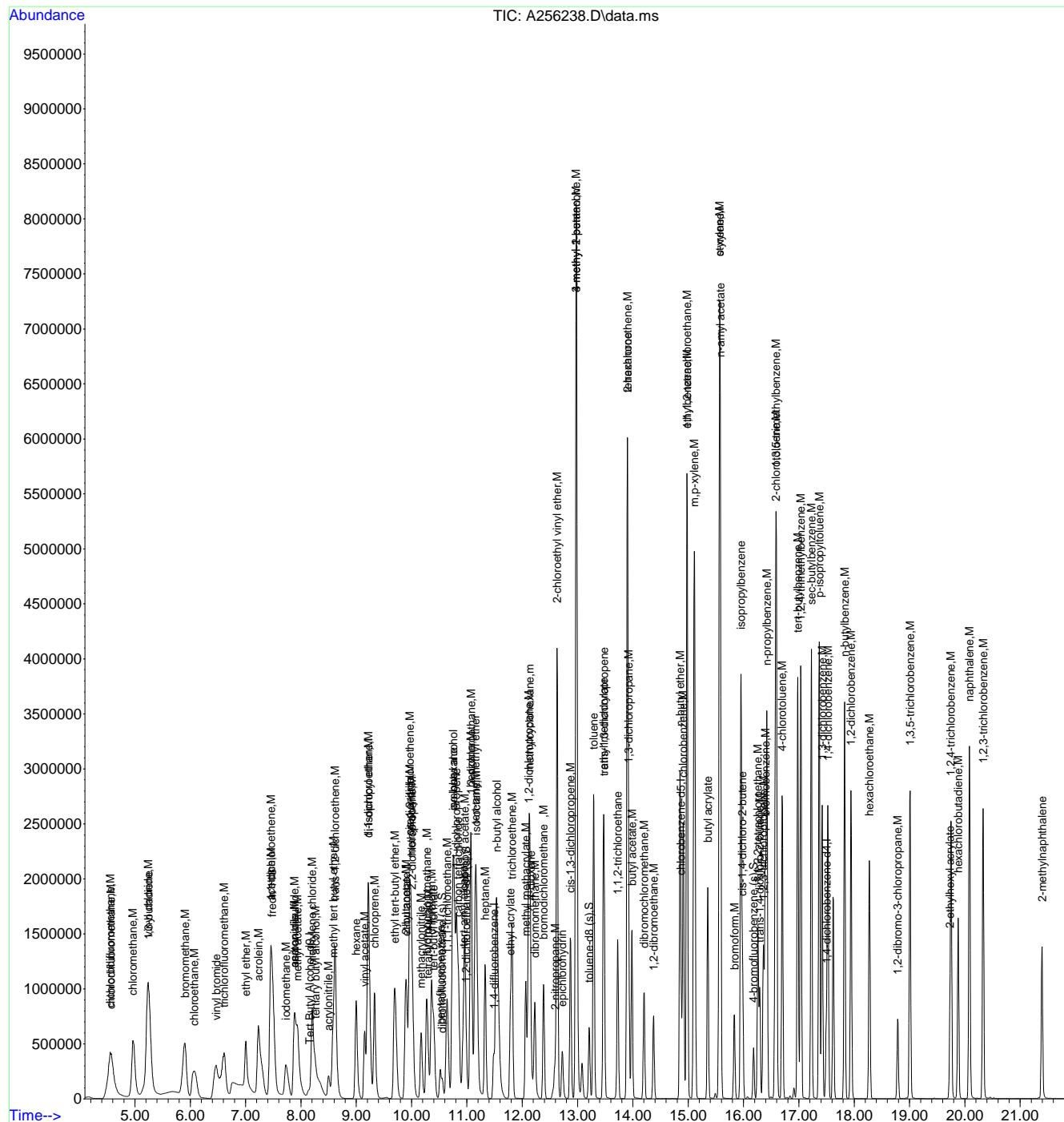
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) sec-butylbenzene	17.227	105	2859630	189.12	ug/L	94
111) 1,3-dichlorobenzene	17.420	146	1124599	216.90	ug/L	97
112) p-isopropyltoluene	17.368	119	2397014	201.08	ug/L	95
113) 1,4-dichlorobenzene	17.525	146	1116989	211.72	ug/L	99
114) 1,2-dichlorobenzene	17.943	146	1160966	212.20	ug/L	98
115) n-butylbenzene	17.828	92	1181199	203.51	ug/L	93
116) 1,2-dibromo-3-chloropr...	18.790	157	214842	202.71	ug/L	94
117) 1,3,5-trichlorobenzene	19.010	180	898006	210.71	ug/L	100
118) 2-ethylhexyl acrylate	19.727	70	151773	43.84	ug/L	95
119) 1,2,4-trichlorobenzene	19.753	180	844046	208.26	ug/L	99
120) hexachlorobutadiene	19.878	225	349776	227.71	ug/L	98
121) naphthalene	20.082	128	2664471	190.84	ug/L	98
122) 1,2,3-trichlorobenzene	20.328	180	878220	206.17	ug/L	97
123) hexachloroethane	18.278	201	388956	215.10	ug/L	98
124) 2-methylnaphthalene	21.395	142	798797	103.03	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256238.D
 Acq On : 4 Feb 2020 8:36 pm
 Operator : BridgetK
 Sample : ic9958-200
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 05 10:00:31 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 09:58:31 2020
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256241.D
 Acq On : 4 Feb 2020 10:04 pm
 Operator : BridgetK
 Sample : icv9958-50
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 05 14:29:02 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.138	65	368940	500.00	ug/L	0.00
5) pentafluorobenzene	10.518	168	202072	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.486	114	350067	50.00	ug/L	0.00
74) chlorobenzene-d5	14.875	117	284089	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.495	152	146986	50.00	ug/L	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) dibromofluoromethane (s)	10.555	113	110425	49.90	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.80%			
53) 1,2-dichloroethane-d4 (s)	10.994	65	133645	48.97	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.94%			
75) toluene-d8 (s)	13.206	98	414285	51.55	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.10%			
99) 4-bromofluorobenzene (s)	16.177	95	125914	48.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.34%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) tertiary butyl alcohol	8.269	59	222718	247.95	ug/L	99
4) 1,4-dioxane	12.155	88	76382	1249.90	ug/L	100
7) dichlorodifluoromethane	4.540	85	209297	38.65	ug/L	99
8) chloromethane	4.964	50	312183	39.73	ug/L	98
9) vinyl chloride	5.230	62	321631	40.43	ug/L	96
10) 1,3-butadiene	5.241	54	228084	58.46	ug/L	98
11) bromomethane	5.900	94	287009	58.10	ug/L	97
12) chloroethane	6.062	64	135660	42.66	ug/L	98
13) vinyl bromide	6.465	106	159993	55.08	ug/L	100
14) trichlorofluoromethane	6.611	101	225954	47.82	ug/L	96
15) ethyl ether	7.003	74	69055	49.66	ug/L	98
16) acrolein	7.233	56	33579	50.22	ug/L	89
17) freon 113	7.490	151	101934	49.64	ug/L	99
18) 1,1-dichloroethene	7.453	96	117558	49.44	ug/L	97
19) acetone	7.453	43	247953	195.16	ug/L	99
20) acetonitrile	7.892	41	256317	424.95	ug/L	97
21) iodomethane	7.725	142	230773	65.06	ug/L	98
22) carbon disulfide	7.882	76	446889	59.45	ug/L	97
23) methylene chloride	8.201	84	138949	49.06	ug/L	99
24) methyl acetate	7.945	43	127415	46.89	ug/L	98
25) methyl tert butyl ether	8.583	73	730915	96.32	ug/L	98
26) trans-1,2-dichloroethene	8.619	96	112310	49.37	ug/L	98
27) hexane	9.001	57	110952	39.15	ug/L	99
28) di-isopropyl ether	9.210	45	402393	45.81	ug/L	98
29) ethyl tert-butyl ether	9.692	59	351634	46.34	ug/L	98
30) 2-butanone	9.890	72	98246	209.59	ug/L	99
31) 1,1-dichloroethane	9.221	63	213004	49.04	ug/L	99
32) chloroprene	9.331	53	174810	49.92	ug/L	98
33) acrylonitrile	8.499	53	69425	54.32	ug/L	95
34) vinyl acetate	9.153	86	26548	49.67	ug/L #	86
35) ethyl acetate	9.906	45	25849	44.78	ug/L #	72
36) 2,2-dichloropropane	10.005	77	181796	46.17	ug/L	98
37) cis-1,2-dichloroethene	9.964	96	128090	48.29	ug/L	97
38) methyl acrylate	9.990	85	26750	54.50	ug/L #	91
39) propionitrile	9.964	54	312010	566.20	ug/L	88
40) bromochloromethane	10.272	128	64352	51.52	ug/L	99
41) tetrahydrofuran	10.293	42	63071	51.95	ug/L	100
42) chloroform	10.361	83	203128	48.18	ug/L	97
43) tert-butyl formate	10.398	59	124916	53.00	ug/L	99
45) methacrylonitrile	10.173	67	67424	50.86	ug/L	98
46) cyclohexane	10.759	84	196515	49.69	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256241.D
 Acq On : 4 Feb 2020 10:04 pm
 Operator : BridgetK
 Sample : icv9958-50
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 05 14:29:02 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) 1,1,1-trichloroethane	10.638	97	201487	50.09	ug/L	96
48) iso-butyl alcohol	10.753	43	222829	487.47	ug/L	97
49) 1,1-dichloropropene	10.811	75	154537	48.05	ug/L	98
50) carbon tetrachloride	10.842	117	170639	51.51	ug/L	100
51) tert-amyl alcohol	10.936	73	104038	249.22	ug/L	96
54) benzene	11.067	78	476324	49.58	ug/L	99
55) iso-octane	11.177	57	397744	51.42	ug/L	97
56) tert-amyl methyl ether	11.146	73	358775	46.13	ug/L	99
57) heptane	11.329	71	75964	48.60	ug/L	96
58) isopropyl acetate	10.957	87	35717	49.74	ug/L	97
59) 1,2-dichloroethane	11.083	62	167189	46.28	ug/L	96
60) n-butyl alcohol	11.527	41	347063	2480.35	ug/L	99
61) ethyl acrylate	11.784	55	184262	46.48	ug/L	99
62) trichloroethene	11.815	95	114370	50.18	ug/L	97
63) 2-nitropropane	12.589	41	69052	51.13	ug/L	93
64) methylcyclohexane	12.134	83	220071	51.58	ug/L	99
65) 2-chloroethyl vinyl ether	12.626	63	389594	258.40	ug/L	99
66) methyl methacrylate	12.066	100	37581	53.34	ug/L	# 67
67) 1,2-dichloropropane	12.108	63	123508	50.14	ug/L	99
68) dibromomethane	12.228	93	78462	48.41	ug/L	95
69) bromodichloromethane	12.385	83	157325	49.78	ug/L	97
70) epichlorohydrin	12.720	57	100351	248.29	ug/L	99
71) cis-1,3-dichloropropene	12.871	75	186708	49.49	ug/L	98
72) 4-methyl-2-pentanone	12.976	58	326569	199.00	ug/L	99
73) 3-methyl-1-butanol	12.971	55	332755	1005.29	ug/L	97
76) toluene	13.290	92	274761	51.50	ug/L	98
77) trans-1,3-dichloropropene	13.478	75	168345	51.49	ug/L	98
78) ethyl methacrylate	13.463	69	167502	51.70	ug/L	97
79) 1,1,2-trichloroethane	13.724	83	85328	51.49	ug/L	99
80) 2-hexanone	13.897	58	267835	192.90	ug/L	97
81) tetrachloroethene	13.902	166	110993	54.22	ug/L	99
82) 1,3-dichloropropane	13.923	76	170478	50.30	ug/L	98
83) butyl acetate	13.980	56	96588	49.93	ug/L	95
84) dibromochloromethane	14.200	129	110324	54.39	ug/L	99
85) 1,2-dibromoethane	14.373	107	111887	51.66	ug/L	98
86) n-butyl ether	14.854	57	459669	47.04	ug/L	100
87) chlorobenzene	14.911	112	274950	50.39	ug/L	99
88) 1,1,2-tetrachloroethane	14.979	131	125534	53.44	ug/L	97
89) ethylbenzene	14.974	91	474211	49.79	ug/L	99
90) m,p-xylene	15.110	106	364179	102.16	ug/L	98
91) o-xylene	15.560	106	201217	52.41	ug/L	99
92) styrene	15.570	104	300926	49.60	ug/L	100
93) butyl acrylate	15.351	55	240452	48.39	ug/L	99
94) n-amyl acetate	15.586	70	102180	47.79	ug/L	99
95) bromoform	15.832	173	74708	54.59	ug/L	99
96) isopropylbenzene	15.952	105	529158	52.74	ug/L	100
97) cis-1,4-dichloro-2-butene	15.983	75	64157	54.19	ug/L	99
100) bromobenzene	16.391	156	107391	47.70	ug/L	97
101) 1,1,2,2-tetrachloroethane	16.261	83	163231	48.00	ug/L	96
102) trans-1,4-dichloro-2-b...	16.292	53	42587	48.14	ug/L	98
103) 1,2,3-trichloropropane	16.360	110	42710	48.25	ug/L	100
104) n-propylbenzene	16.418	91	557730	49.71	ug/L	99
105) 2-chlorotoluene	16.574	126	113911	48.27	ug/L	100
106) 4-chlorotoluene	16.700	91	317888	49.76	ug/L	100
107) 1,3,5-trimethylbenzene	16.595	105	441793	51.66	ug/L	99
108) tert-butylbenzene	16.977	119	393698	54.33	ug/L	99
109) 1,2,4-trimethylbenzene	17.035	105	434844	52.76	ug/L	98
110) sec-butylbenzene	17.223	105	580624	53.37	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256241.D
 Acq On : 4 Feb 2020 10:04 pm
 Operator : BridgetK
 Sample : icv9958-50
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 05 14:29:02 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

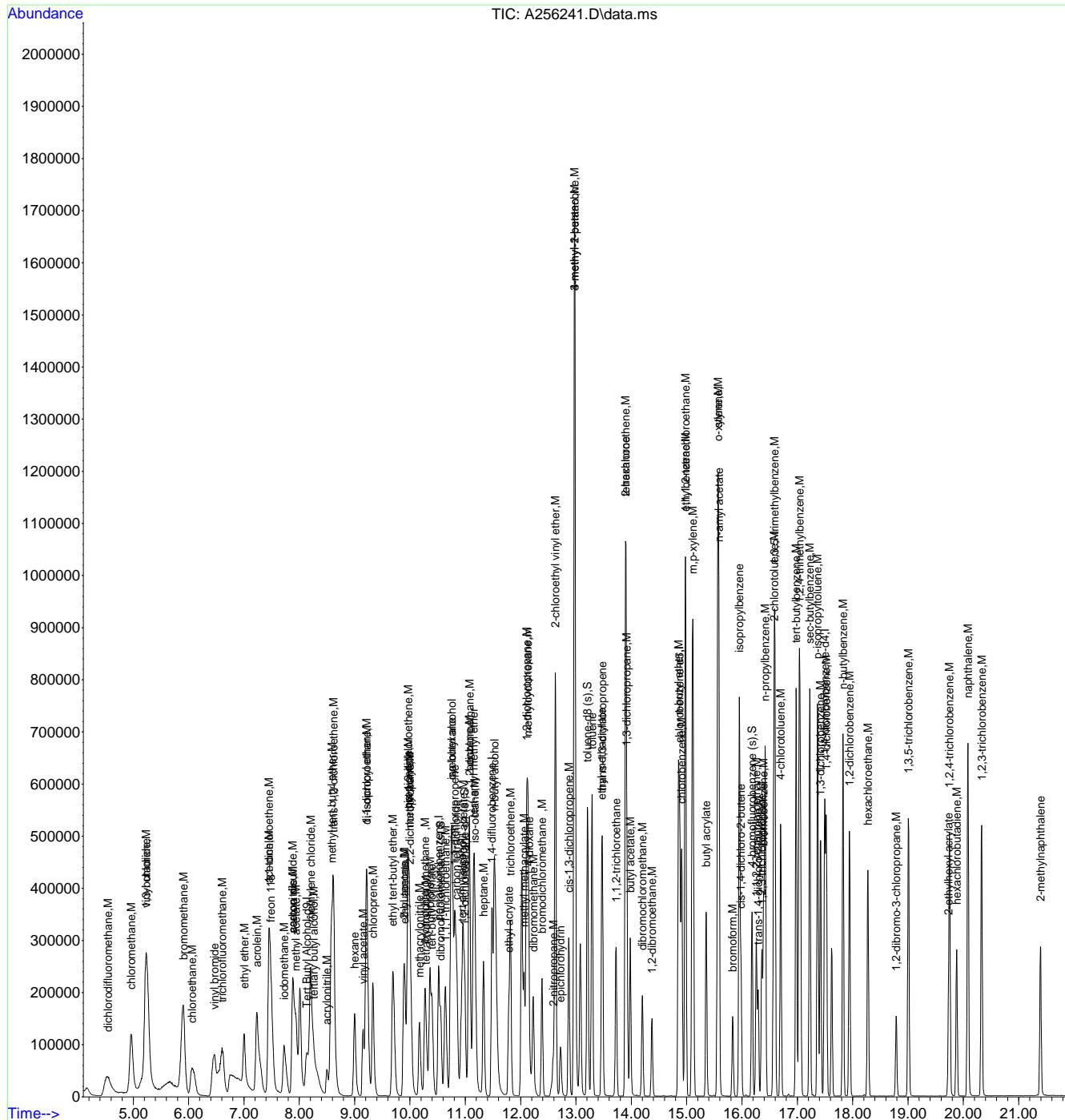
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
111) 1,3-dichlorobenzene	17.422	146	215826	50.33	ug/L	96
112) p-isopropyltoluene	17.369	119	464048	52.88	ug/L	99
113) 1,4-dichlorobenzene	17.526	146	216476	49.53	ug/L	99
114) 1,2-dichlorobenzene	17.945	146	218504	49.34	ug/L	98
115) n-butylbenzene	17.824	92	226995	50.27	ug/L	97
116) 1,2-dibromo-3-chloropr...	18.787	157	44625	50.60	ug/L	95
117) 1,3,5-trichlorobenzene	19.006	180	174714	49.96	ug/L	100
118) 2-ethylhexyl acrylate	19.728	70	30637	11.30	ug/L	94
119) 1,2,4-trichlorobenzene	19.749	180	164298	49.52	ug/L	98
120) hexachlorobutadiene	19.880	225	61777	48.15	ug/L	99
121) naphthalene	20.084	128	582422	53.12	ug/L	99
122) 1,2,3-trichlorobenzene	20.330	180	171934	51.41	ug/L	96
123) hexachloroethane	18.279	201	74042	54.91	ug/L	99
124) 2-methylnaphthalene	21.391	142	163813	27.59	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
Data File : A256241.D
Acq On : 4 Feb 2020 10:04 pm
Operator : BridgetK
Sample : icv9958-50
Misc : MS40670,VA9958,5,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 05 14:29:02 2020
Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
QLast Update : Wed Feb 05 10:36:55 2020
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256242.D
 Acq On : 4 Feb 2020 10:34 pm
 Operator : BridgetK
 Sample : icv9958-50
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 05 14:31:39 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	8.138	65	349989	500.00	ug/L	0.00
5) pentafluorobenzene	10.518	168	191176	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.480	114	326163	50.00	ug/L	0.00
74) chlorobenzene-d5	14.874	117	240640	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.495	152	130805	50.00	ug/L	0.00

System Monitoring Compounds						
44) dibromofluoromethane (s)	10.554	113	102841	49.12	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	98.24%		
53) 1,2-dichloroethane-d4 (s)	10.988	65	126933	49.92	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery =	99.84%		
75) toluene-d8 (s)	13.206	98	350264	51.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	102.92%		
99) 4-bromofluorobenzene (s)	16.182	95	110143	47.84	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	95.68%		

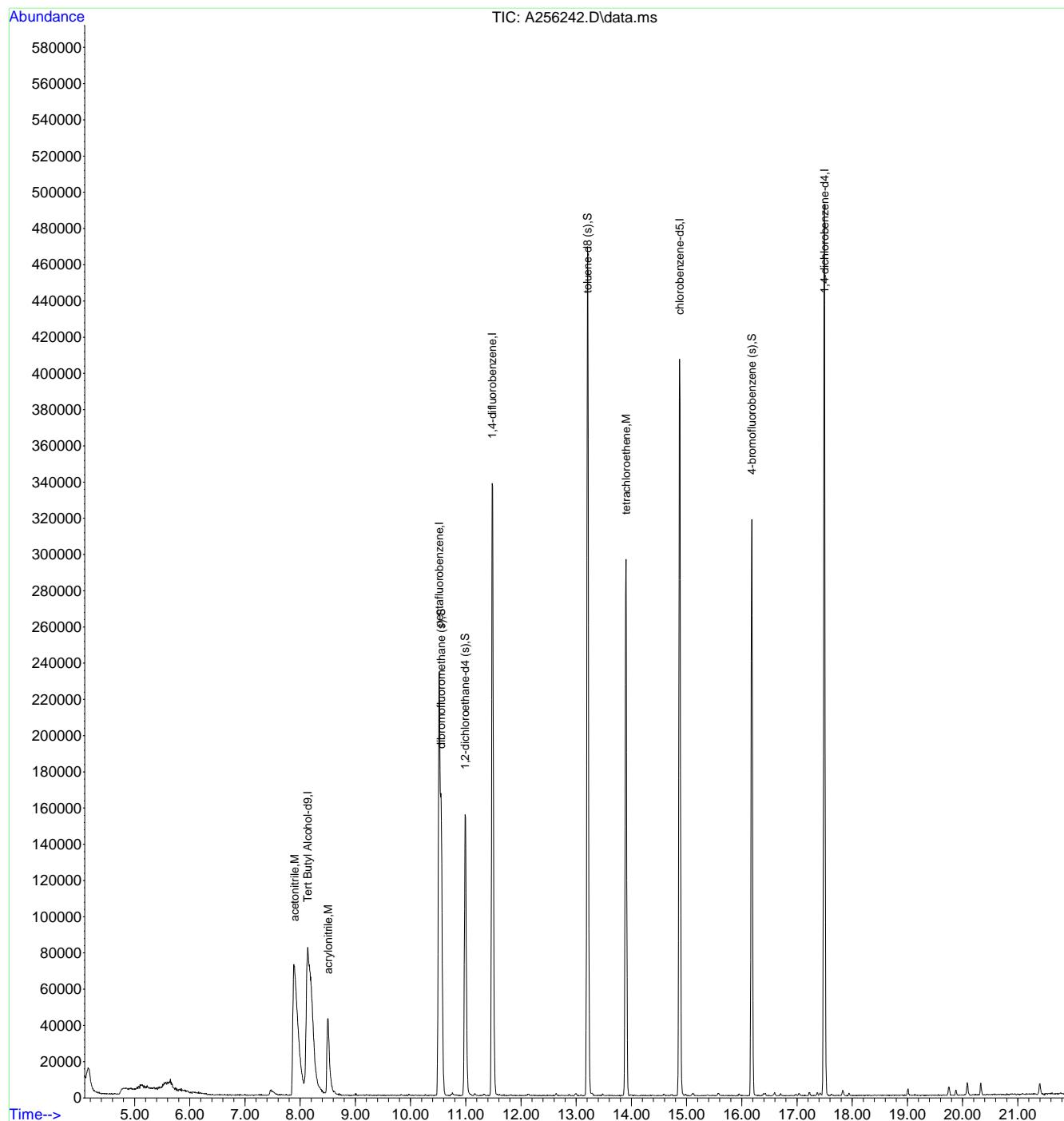
Target Compounds					Qvalue
20) acetonitrile	7.897	41	257153	450.64	ug/L 98
33) acrylonitrile	8.504	53	58040	48.00	ug/L 95
81) tetrachloroethene	13.902	166	88353	50.95	ug/L 99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VA9958\
 Data File : A256242.D
 Acq On : 4 Feb 2020 10:34 pm
 Operator : BridgetK
 Sample : icv9958-50
 Misc : MS40670,VA9958,5,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 05 14:31:39 2020
 Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Title : SW-846 8260C/EPA 624 Rxi-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258161.d
 Acq On : 20 May 2020 8:15 am
 Operator : payalr
 Sample : cc9958-20 Inst : MSA
 Misc : MS43183,VA10060,5,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:36:43 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.116	65	350178	500.00	ug/L	-0.02
5) pentafluorobenzene	10.495	168	172187	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.463	114	250618	50.00	ug/L	-0.02
74) chlorobenzene-d5	14.852	117	219732	50.00	ug/L	-0.02
98) 1,4-dichlorobenzene-d4	17.472	152	127987	50.00	ug/L	-0.02
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.532	113	81372	43.16	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	86.32%	
53) 1,2-dichloroethane-d4 (s)	10.966	65	92480	47.33	ug/L	-0.03
Spiked Amount 50.000	Range 81 - 124		Recovery	=	94.66%	
75) toluene-d8 (s)	13.189	98	295984	47.62	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	95.24%	
99) 4-bromofluorobenzene (s)	16.160	95	100374	44.56	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery	=	89.12%	
Target Compounds						
3) tertiary butyl alcohol	8.262	59	80724	94.68	ug/L	96
4) 1,4-dioxane	12.138	88	29919	515.82	ug/L	97
7) dichlorodifluoromethane	4.486	85	113487	24.60	ug/L	98
8) chloromethane	4.915	50	144386	21.57	ug/L	96
9) vinyl chloride	5.182	62	125765	18.55	ug/L	94
10) 1,3-butadiene	5.229	54	58234	17.52	ug/L	97
11) bromomethane	5.862	94	78476	18.64	ug/L	96
12) chloroethane	6.060	64	51720	19.08	ug/L	94
13) vinyl bromide	6.432	106	45289	18.30	ug/L	99
14) trichlorofluoromethane	6.568	101	83150	20.65	ug/L	93
15) ethyl ether	6.986	74	21286	17.96	ug/L	97
16) acrolein	7.221	56	10777	18.91	ug/L	96
17) freon 113	7.467	151	35776	20.45	ug/L	92
18) 1,1-dichloroethene	7.431	96	32423	16.00	ug/L	97
19) acetone	7.425	43	85452	78.93	ug/L	97
20) acetonitrile	7.865	41	120151	233.77	ug/L	94
21) iodomethane	7.702	142	70682	23.39	ug/L	95
22) carbon disulfide	7.859	76	113261	17.68	ug/L	97
23) methylene chloride	8.178	84	40449	16.76	ug/L	98
24) methyl acetate	7.922	43	40273	17.39	ug/L	100
25) methyl tert butyl ether	8.571	73	146089	22.59	ug/L	100
26) trans-1,2-dichloroethene	8.597	96	31722	16.36	ug/L	96
27) hexane	8.979	57	46822	19.39	ug/L	99
28) di-isopropyl ether	9.193	45	141257	18.87	ug/L	97
29) ethyl tert-butyl ether	9.679	59	144392	22.33	ug/L	98
30) 2-butanone	9.868	72	28417	71.14	ug/L	98
31) 1,1-dichloroethane	9.198	63	60782	16.42	ug/L	97
32) chloroprene	9.308	53	44109	14.78	ug/L	99
33) acrylonitrile	8.482	53	22477	20.64	ug/L	96
34) vinyl acetate	9.130	86	7532	16.54	ug/L	96
35) ethyl acetate	9.889	45	8234	16.74	ug/L #	61
36) 2,2-dichloropropane	9.988	77	66100	19.70	ug/L	96
37) cis-1,2-dichloroethene	9.941	96	37562	16.62	ug/L	92
38) methyl acrylate	9.972	85	6932	16.57	ug/L #	88
39) propionitrile	9.936	54	100594	214.23	ug/L	75
40) bromochloromethane	10.250	128	18929	17.78	ug/L	94
41) tetrahydrofuran	10.271	42	20419	19.74	ug/L	96
42) chloroform	10.338	83	56900	15.84	ug/L	98
43) tert-butyl formate	10.375	59	41852	20.84	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258161.d
 Acq On : 20 May 2020 8:15 am
 Operator : payalr
 Sample : cc9958-20 Inst : MSA
 Misc : MS43183,VA10060,5,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:36:43 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
45) methacrylonitrile	10.150	67	19728	17.46	ug/L	97
46) cyclohexane	10.746	84	69209	20.54	ug/L	90
47) 1,1,1-trichloroethane	10.621	97	62718	18.30	ug/L	97
48) iso-butyl alcohol	10.736	43	74801	192.04	ug/L	89
49) 1,1-dichloropropene	10.788	75	39821	14.53	ug/L	97
50) carbon tetrachloride	10.825	117	50769	17.99	ug/L	99
51) tert-amyl alcohol	10.903	73	35767	100.55	ug/L	92
54) benzene	11.045	78	128821	18.73	ug/L	98
55) iso-octane	11.149	57	125635	22.69	ug/L	99
56) tert-amyl methyl ether	11.123	73	140011	25.14	ug/L	98
57) heptane	11.306	71	24968	22.31	ug/L	94
58) isopropyl acetate	10.935	87	10668	20.75	ug/L	# 81
59) 1,2-dichloroethane	11.060	62	44923	17.37	ug/L	99
60) n-butyl alcohol	11.505	41	122772	1225.58	ug/L	99
61) ethyl acrylate	11.761	55	56474	19.90	ug/L	97
62) trichloroethene	11.792	95	28933	17.73	ug/L	100
63) 2-nitropropane	12.561	41	20390	21.09	ug/L	84
64) methylcyclohexane	12.117	83	67210	22.01	ug/L	97
65) 2-chloroethyl vinyl ether	12.608	63	118084	109.40	ug/L	98
66) methyl methacrylate	12.044	100	10005	19.84	ug/L	92
67) 1,2-dichloropropane	12.091	63	34535	19.58	ug/L	94
68) dibromomethane	12.200	93	21351	18.40	ug/L	87
69) bromodichloromethane	12.363	83	43013	19.01	ug/L	97
70) epichlorohydrin	12.703	57	32114	110.99	ug/L	100
71) cis-1,3-dichloropropene	12.854	75	52005	19.25	ug/L	94
72) 4-methyl-2-pentanone	12.954	58	99551	84.74	ug/L	95
73) 3-methyl-1-butanol	12.954	55	110234	465.18	ug/L	96
76) toluene	13.267	92	73419	17.79	ug/L	96
77) trans-1,3-dichloropropene	13.461	75	46324	18.32	ug/L	95
78) ethyl methacrylate	13.450	69	47782	19.07	ug/L	95
79) 1,1,2-trichloroethane	13.701	83	25243	19.69	ug/L	96
80) 2-hexanone	13.879	58	89410	83.25	ug/L	99
81) tetrachloroethene	13.885	166	29754	18.79	ug/L	97
82) 1,3-dichloropropane	13.900	76	49202	18.77	ug/L	97
83) butyl acetate	13.963	56	31396	20.98	ug/L	98
84) dibromochloromethane	14.183	129	31591	20.14	ug/L	95
85) 1,2-dibromoethane	14.350	107	35398	21.13	ug/L	96
86) n-butyl ether	14.836	57	139674	18.48	ug/L	99
87) chlorobenzene	14.894	112	79592	18.86	ug/L	97
88) 1,1,1,2-tetrachloroethane	14.962	131	37684	20.74	ug/L	98
89) ethylbenzene	14.957	91	138341	18.78	ug/L	99
90) m,p-xylene	15.093	106	104980	38.07	ug/L	100
91) o-xylene	15.542	106	59085	19.90	ug/L	98
92) styrene	15.553	104	88382	18.84	ug/L	99
93) butyl acrylate	15.339	55	76535	19.91	ug/L	99
94) n-amyl acetate	15.569	70	33382	20.18	ug/L	94
95) bromoform	15.809	173	23849	22.53	ug/L	96
96) isopropylbenzene	15.935	105	151727	19.55	ug/L	99
97) cis-1,4-dichloro-2-butene	15.966	75	20426	22.31	ug/L	95
100) bromobenzene	16.374	156	35955	18.34	ug/L	94
101) 1,1,2,2-tetrachloroethane	16.238	83	56728	19.16	ug/L	99
102) trans-1,4-dichloro-2-b...	16.275	53	15589	20.24	ug/L	95
103) 1,2,3-trichloropropane	16.337	110	14797	19.20	ug/L	98
104) n-propylbenzene	16.400	91	164704	16.86	ug/L	98
105) 2-chlorotoluene	16.557	126	35452	17.25	ug/L	96
106) 4-chlorotoluene	16.677	91	94958	17.07	ug/L	98
107) 1,3,5-trimethylbenzene	16.573	105	130943	17.58	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\va10060\
 Data File : a258161.d
 Acq On : 20 May 2020 8:15 am
 Operator : payalr
 Sample : cc9958-20 Inst : MSA
 Misc : MS43183,VA10060,5,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M
 Quant Results File: MA9958.RES
 Quant Time: May 20 22:36:43 2020
 Quant Title : SW-846 8260C/EPA 624 RxI-624 60mx0.25mmx1.4um
 QLast Update : Wed Feb 05 10:36:55 2020
 Response via : Initial Calibration

Compound	R.T.	QION	Response	Conc	Units	Dev(Min)
108) tert-butylbenzene	16.960	119	106872	16.94	ug/L	97
109) 1,2,4-trimethylbenzene	17.017	105	129322	18.02	ug/L	98
110) sec-butylbenzene	17.206	105	168558	17.79	ug/L	98
111) 1,3-dichlorobenzene	17.399	146	69636	18.65	ug/L	98
112) p-isopropyltoluene	17.347	119	138066	18.07	ug/L	98
113) 1,4-dichlorobenzene	17.504	146	70305	18.47	ug/L	98
114) 1,2-dichlorobenzene	17.922	146	76706	19.89	ug/L	97
115) n-butylbenzene	17.807	92	69074	17.57	ug/L	98
116) 1,2-dibromo-3-chloropr...	18.764	157	18682	24.33	ug/L	96
117) 1,3,5-trichlorobenzene	18.989	180	67046	22.02	ug/L	98
118) 2-ethylhexyl acrylate	19.711	70	9291	3.94	ug/L	98
119) 1,2,4-trichlorobenzene	19.732	180	70134	24.28	ug/L	98
120) hexachlorobutadiene	19.863	225	25146	22.51	ug/L	98
121) naphthalene	20.061	128	261993	27.44	ug/L	99
122) 1,2,3-trichlorobenzene	20.307	180	79509	27.30	ug/L	96
123) hexachloroethane	18.257	201	23556	20.06	ug/L	98
124) 2-methylnaphthalene	21.369	142	77895	15.07	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\05-21-2020\val0060\

Data File : a258161.d

Acq On : 20 May 2020 8:15 am

Operator : paypal

Sample : cc9958-20

Misc : MS43183, VA10060, 5, . . . , 1

Inst : MSA

ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MA9958.M

Quant Results File: MA9958.BES

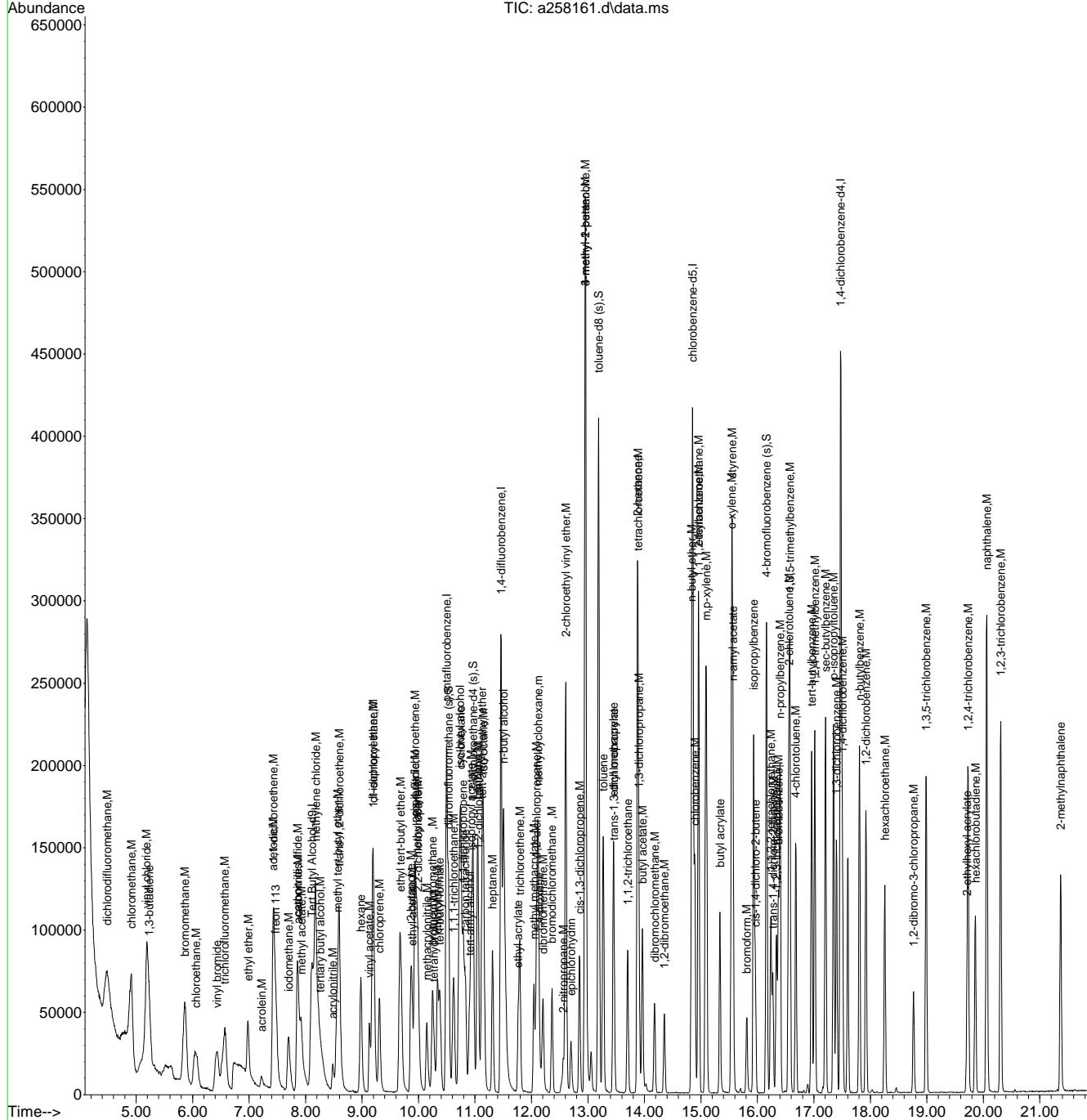
Quant Results File: MA9958.RES
Quant Time: May 20 22:36:43 2020

Quant Title : SW-846 8260C/EPA 624 Rx1-624 60mx0 25mmx1 4um

Last Update : Wed Feb 05 10:36:55 2020

Last Update : Wed Feb 05 10:36:55 2020
Response via : Initial Calibration

Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents				Lot #				Column			
Standards	ABK\V019-2692-112-28	EC:\V019-2692-122-5		Acrolein:\V019-2692-116.5				Method		V8260C	
Standard Concentrations	100-10,000ppm	100ppm		100ppm				Init Calib Date		3/7/2020	
Expiration Date	3/29/2020	3/12/2020		4/3/2020							
Ext Standards	Ext ABK:\V019-2692-124.1	Ext EC:\V019-2692-123.1		Ext Acrolein:\V019-2692-117.3	Ext PA:\V019-2692-91.1			Analysis Date		3/7/2020	
Standard Concentrations	100-10,000ppm	100ppm		100ppm		100-1,000ppm		Sequence loaded by		Prashant B. Shukla	
Expiration Date	4/5/2020	3/12/2020		3/31/2020		3/11/2020		Data processed by		Robert Szot	
Internal Surrogate	V019-2692-120							Batch ID		V2V2712	
Internal Surrogate Concentration	50/500ppm							Matrix		AQ	
Expiration Date	3/18/2020							Approved By:		MOHUI	
Initial Calibration Method	M2V2712							Approved Date:		3/10/2020 8:37:39 AM	
pH Paper Lot# (Wide range)	221419	Exp. 8/1/2022									

Data File	Sample ID	Bot	#	Dil	Workgroup	#	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2V 65562	BFB			NA			TUNE	5			1	OK	2:46 PM
2V 65563	IC2712-0.2			NA			IC8260 Water	5			2	OK	1uL Std.A/B/K/EC,Acrolein in 500mL DI H2O
2V 65564	IC2712-0.5			NA			IC8260 Water	5			3	OK	1uL Std.A/B/K/EC,Acrolein in 200mL DI H2O
2V 65565	IC2712-1			NA			IC8260 Water	5			4	OK	1uL Std.A/B/K/EC,Acrolein in 100mL DI H2O
2V 65566	IC2712-2			NA			IC8260 Water	5			5	OK	1uL Std.A/B/K/EC,Acrolein in 50mL DI H2O
2V 65567	IC2712-4			NA			IC8260 Water	5			6	OK	2uL Std.A/B/K/EC,Acrolein in 50mL DI H2O
2V 65568	IC2712-8			NA			IC8260 Water	5			7	OK	4uL Std.A/B/K/EC,Acrolein in 50mL DI H2O
2V 65569	IC2712-20			NA			IC8260 Water	5			8	OK	10uL Std.A/B/K/EC,Acrolein in 50mL DI H2O
2V 65570	ICCC2712-50			NA			IC8260 Water	5			9	OK	25uL Std.A/B/K/EC,Acrolein in 50mL DI H2O
2V 65571	IC2712-100			NA			IC8260 Water	5			10	OK	50uL Std.A/B/K/EC,Acrolein in 50mL DI H2O
2V 65572	IC2712-200			NA			IC8260 Water	5			11	OK	100uL Std.A/B/K/EC,Acrolein in 50mL DI H2O

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Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2V	65573	IB	NA			5			12	OK	
2V	65574	IB	NA			5			13	OK	
2V	65575	ICV2712-50	NA	ICV8260 Water		5			14	OK	25uL Ext.A/B/K/EC,Acrolein in 50mL DI H2O
2V	65576	ICV2712-50	NA	ICV8260 Water		5			15	OK	25uL Ext.PA in 50mL DI H2O
2V	65577	IB	NA			5			16	OK	

GCMS Volatile Run Log

Standard / Reagents				Lot #				Column			
Standards	ABK: V020-2701-39-60	EC: V020-2701-79-9		Acrolein: V020-2701-57-30		Method		Rxi-624(30mx0.25mmx1.4um)		V8260C	
Standard Concentrations	100-10,000ppm	100ppm		100ppm		Init Calib Date				3/7/2020	
Expiration Date	5/24/2020	5/27/2020		6/4/2020							
Internal Surrogate	V020-2701-78										
Internal Surrogate Concentration	50/500ppm										
Expiration Date	6/1/2020										
Rough Review											
Initial Calibration Method	M2V2712										
pH Paper Lot# (Wide range)	221419	Exp. 8/1/2022									

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2V 67665	IB	NA	NA			5			1	OK	
2V 67666	BFBCC2712-20	NA	NA			5			2	OK/OK	20 uL ABK, EC, Acrolein / 100 mL DI H2O 8:30 AM
2V 67667	BS	NA	NA			5			3	OK	50 uL ABK, EC, Acrolein / 100 mL DI H2O
2V 67668	IB	NA	NA			5			4	OK	
2V 67669	MB	NA	NA			5			5	OK	
2V 67670	JD7301-1	8	NA	MS43225	V8260PPCTL42+, NAP, TBA	5			1	6	OK MPXYL, OXYL
2V 67671	JD7279-1	6	NA	MS43216	V8260SL, ETHBNZ, TOLUENE, XYL	5			1	7	OK
2V 67672	JD7280-1	7	NA	MS43216	V8260SL, ETHBNZ, TOLUENE, XYL	5			1	8	OK
2V 67673	JD7281-1	5	5	MS43216	V8260SL, ETHBNZ, TOLUENE, XYL	10/50			1	9	OK
2V 67674	IB	NA	NA	MS43225	V8260PPCTL42+, NAP, TBA	5			10	OK	
2V 67675	JD7301-1MS	2	NA	MS43225	V8260PPCTL42+, NAP, TBA	5			1	11	OK 20 uL ABK, EC, Acrolein / 40 mL sample

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Rev Date: 12/18/2017

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Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2V 67676	JD7301-1MSD	3	NA	MS43225	\8260PPCTL42+, NAP,TBA	5		1	12	NG	no data collected, mass spec offline
2V 67677	JD7301-1MSD	1	NA	MS43225	\8260PPCTL42+, NAP,TBA	5		1	13	OK	20 uL ABK, EC, Acrolein / 40 mL sample
2V 67678	IB		NA			5			14	OK	
2V 67679	JD7282-3	2	10	MS43215	V8260SL	5/50		1	15	OK	
2V 67680	JD7282-4	2	NA	MS43215	V8260SL	5		1	16	OK	
2V 67681	JD7219-1	2	20	MS43178	\82602NG36GW+40	2.5/50		1	17	OK	
2V 67682	JD7219-2	2	10	MS43178	\82602NG36GW+40	5/50		1	18	OK	
2V 67683	JD7372-7	2	NA	MS43259	\8260BENZ,VLS	5		1	19	OK	
2V 67684	JD7372-2	2	NA	MS43259	V8260BENZ	5		1	20	OK	
2V 67685	JD7372-6	2	NA	MS43259	\8260BENZ,VLS	5		1	21	OK	
2V 67686	JD7372-5	2	10	MS43259	V8260BENZ	5/50		1	22	OK	
2V 67687	JD7397-1	6	NA	MS43277	\8260SL,ETHBNZ, TOLUENE,XYL	5		1	23	OK	
2V 67688	JD7340-1	4	NA	MS43240	V8260CP51G	5		1	24	OK	(07:56 PM)
2V 67689	IB		NA			5			25	OK	
2V 67690	IB		NA			5			26	OK	

GCMS Volatile Run Log

Standard / Reagents				Lot #				Column			
Standard	ABK: V020-2701-39-4	EC: V020-2701-79-9		Acrolein: V020-2701-57-9		Method		DB-624(60mx0.25mmx1.4um)		v8260c	
Standard Concentration	100-10,000 ppm	100 ppm		100 ppm		Init Calib Date					2/4/2020
Expiration Date	5/24/2020	5/27/2020		6/4/2020							
Internal Surrogate	V020-2701-55					Analysis Date					5/20/2020
Internal Surrogate Concentration	50/500ppm					Sequence loaded by					Edward Durmer
Expiration Date	6/1/2020					Data processed by					JanelleC
						Batch ID					VA10060
						Matrix					AQ
						Approved By:					KANYAV
pH Paper Lot#	221419	Exp. 8/1/2022		Initial Calibration Method	MA9958	Approved Date:					5/21/2020 4:37:05 PM

Data File	Sample ID	Bot #	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
A 258161	BFB/CC9958-20	NA			5			1	OK/OK	20ul abk ec,acrolein/100ml, 8:15am
A 258162	CC9958-1	NA			5			2	OK	1ul abk,ec,acrolein/100ml
A 258163	BS	NA			5			3	OK	50ul abk,ec,acrolein/100ml
A 258164	IB	NA			5			4	OK	
A 258165	MB	NA			5			5	OK	
A 258166	JD7282-9	1	NA	MS43215	V8260SL	5		1	6	OK
A 258167	JD7282-11	1	NA	MS43215	V8260SL	5		1	7	OK
A 258168	JD6994-11	2	NA	MS43077	V8260BTXMT, VLS	5		1	8	OK
A 258169	JD7282-9MS	2	NA	MS43215	V8260SL	5		1	9	OK
A 258170	JD7282-9MSD	3	NA	MS43215	V8260SL	5		1	10	OK
A 258171	IB	NA				5			11	OK

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Rev Date: 12/18/2017

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Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
A 258172	JD7282-12	1	NA	MS43215	V8260SL	5		1	12	OK	
A 258173	JD7282-1	1	NA	MS43215	V8260SL	5		1	13	OK	
A 258174	JD7282-2	1	NA	MS43215	V8260SL	5		1	14	OK	
A 258175	JD7282-3	1	NA	MS43215	V8260SL	5		1	15	OK/DL	F/D, RR 10X.
A 258176	JD7282-4	1	NA	MS43215	V8260SL	5		1	16	rr	rr 1x c/o
A 258177	JD7282-5	1	NA	MS43215	V8260SL	5		1	17	OK	
A 258178	JD7282-6	1	NA	MS43215	V8260SL	5		1	18	OK	
A 258179	JD7282-7	1	NA	MS43215	V8260SL	5		1	19	OK	
A 258180	JD7282-8	1	NA	MS43215	V8260SL	5		1	20	OK	
A 258181	JD7282-10	1	NA	MS43215	V8260SL	5		1	21	OK	6:31PM
A 258182	IB		NA			5			22	OK	

GCMS Volatile Run Log

Standard / Reagents				Lot #						Column	
Standard	ABK: V019-2692-77.22	EC: V019-2692-79.5		Acrolein: V019-2692-44.54		Method		V8260C		DB-624(60mx0.25mmx1.4um)	
Standard Concentration	100-10,000 ppm	100 ppm		100 ppm		Init Calib Date		24/20			
Expiration Date	3/4/2020	2/10/2020		2/11/2020							
Standard	Ext ABK: V019-2692-78.1	Ext EC: V019-2692-73.3		Ext Acrolein: V019-2692-76.1	Ext PA: V019-2692-45.2						
Standard Concentration	100-10,000 ppm	100 ppm		100 ppm	100/1000 ppm	Analysis Date		2/4/2020			
Expiration Date	3/4/2020	2/6/2020		3/2/2020	2/10/2020	Sequence loaded by		Robert Szot			
Internal Surrogate	V019-2692-84					Data processed by		Bridget Kelly			
Internal Surrogate Concentration	50/500ppm					Batch ID		VAG958			
Expiration Date	3/4/2020					Matrix		AQ			
						Approved By:		KANYAV			
Expiration Date	8/11/2020					Approved Date:		2/5/2020 11:41:18 PM			

Data File	Sample ID	Bot	Workgroup	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
A 256228	BFB	NA			5			1	ok	3:40 pm
A 256229	IC9958-0.2	NA		8260 initial calibration	5			2	ok	1 uL ABK, EC, Acrolein / 500 mL DI H2O
A 256230	IC9958-0.5	NA		8260 initial calibration	5			3	ok	2.5 uL ABK, EC, Acrolein / 500 mL DI H2O
A 256231	IC9958-1	NA		8260 initial calibration	5			4	ok	5 uL ABK, EC, Acrolein / 500 mL DI H2O
A 256232	IC9958-2	NA		8260 initial calibration	5			5	ok	2 uL ABK, EC, Acrolein / 100 mL DI H2O
A 256233	IC9958-4	NA		8260 initial calibration	5			6	ok	4 uL ABK, EC, Acrolein / 100 mL DI H2O
A 256234	IC9958-8	NA		8260 initial calibration	5			7	ok	8 uL ABK, EC, Acrolein / 100 mL DI H2O
A 256235	IC9958-20	NA		8260 initial calibration	5			8	ok	20 uL ABK, EC, Acrolein / 100 mL DI H2O
A 256236	IC9958-50	NA		8260 initial calibration	5			9	ok	50 uL ABK, EC, Acrolein / 100 mL DI H2O
A 256237	IC9958-100	NA		8260 initial calibration	5			10	ok	100 uL ABK, EC, Acrolein / 100 mL DI H2O
A 256238	IC9958-200	NA		8260 initial calibration	5			11	ok	200 uL ABK, EC, Acrolein / 100 mL DI H2O

OR048-01
Rev Date: 12/18/2017

Page 1 of 2

Data File	Sample ID	Bot #	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
A 256239	IB	NA			5			12	ok	
A 256240	IB	NA			5			13	ok	
A 256241	ICV9958-50	NA	8260 initial calibration	5				14	ok	50 uL Ext ABK, Ext EC, Ext Acrolein / 100 mL DI H2O
A 256242	ICV9958-50	NA	8260 initial calibration	5				15	ok	50 uL Ext PA / 100 mL DI H2O



6WFP
WTP
WTH
CHAIN OF CUSTODY
SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

Page 1 of 2

Client / Reporting Information		Project Information		Requested Analysis										Matrix Codes			
Company Name: AECOM		Project Name: UTPS SER Plants 1/2 Facility															
Street Address: 4320 W. Field Rd		Street:															
City Unionville State IL Zip 60555		City Rockford State IL		Billing Information (If different from Report to)													
Project Contact Peter.Hellatz@aecom.com	E-mail	Project # 100627752		Company Name													
Phone #		Client Purchase Order #		Street Address													
Sampler(s) Name(s) A. Hellatz/A. Sukolowsky	Phone #	Project Manager Peter.Hellatz		Attention:													
SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Date	Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	Number of preserved Bottles	Cl	NaOH	HNO ₃	H ₂ SO ₄	NONE	DI Water	MECH	ENCORE
1	HSSER-RAMW08-051220		5-12-20	1400	AH	G	GW	3	X								
2	HSSER-RAMW07-051320		5-13-20	1010	AH	G	GW	3	X								
3	HSSER-RAMW06-051320		5-13-20	1115	AH	G	GW	3	X								
4	HSSER-RAMW05-051320		5-13-20	1220	AH	G	GW	3	X								
5	HSSER-RAMW04-051320		5-13-20	1315	AH	G	GW	3	X								
6	HSSER-FBLK02-051320		5-13-20	1325	AH	G	GW	3	X								
7	HSSER-RAMW03-051320		5-13-20	1420	AH	G	GW	3	X								
8	HSSER-DUP02-051320		5-13-20	0000	AH	G	GW	3	X								
9	HSSER-RAMW02-051420		5-14-20	0945	AH	G	GW	3	X								
10	HSSER-MSD02-051420		5-14-20	0945	AH	G	GW	3	X								
10	HSSER-FBLK02-051420		5-14-20	1010	AH	G	GW	3	X								

Turn Around Time (Business Days)

Approved By (SGS PM) / Date:

Initial Assessment **3APP**

Label Verification _____

10 Business Days

5 Business Days

3 Business Days*

2 Business Days*

1 Business Day*

Other _____

All data available via Lablink

* Approval needed for 1-3 Business Day TAT

- Commercial "A" (Level 1)
- Commercial "B" (Level 2)
- NJ Reduced (Level 3)
- Full Tier I (Level 4)
- Commercial "C"
- NJ DKQP
- NYASP Category A
- NYASP Category B
- MA MCP Criteria _____
- CT RCP Criteria _____
- State Forms _____
- EDD Format _____

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

* List 13 VOC's

<http://www.sgs.com/en/terms-and-conditions>

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by: ADM	Date / Time: 5-14-20 1300	Received By: 12156030 5342	Relinquished By: 2	Date / Time: 5/15/2020 10:00	Received By: 2
Relinquished by: 3	Date / Time: 	Received By: 3	Relinquished By: 4	Date / Time: 	Received By: 4
Relinquished by: 5	Date / Time: 	Received By: 5	Custody Seal # 109C	<input checked="" type="checkbox"/> Intact <input type="checkbox"/> Not intact <input type="checkbox"/> Absent	Preserved where applicable <input type="checkbox"/> Therm. ID: 1R4 On Ice <input type="checkbox"/> Cooler Temp. 42.9°C IP



CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
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www.sgs.com/ehsusa

Page 2 of 2

Client / Reporting Information		Project Information										Requested Analysis						Matrix Codes											
Company Name: AECOM		Project Name: UTAS SED Plants 1/2 Facility																											
Street Address 4320 Winfield Rd		Street		Billing Information (if different from Report to)																									
City Warrenville IL	State IL	Zip 60555	City Bethel									State IL	Company Name																
Project Contact Peter.Hall@AECOM.com	E-mail 106027752	Project # 106027752	Street Address																										
Phone # 106027752	Client Purchase Order # 106027752		City		State		Zip																						
Sampler(s) Name(s) Peter Hall	Phone # 106027752	Project Manager Peter Hall		Attention:																									
SGS Sample #		Field ID / Point of Collection		Collection				Matrix	# of bottles	Number of preserved Bottles								LAB USE ONLY											
				MEOH/DI Vial #	Date	Time	Sampled by			Grab (G) Comp (C)	HCl	NaOH	HNO3	H2SO4	NONE	D Water	MEOH							ENCORE					
11 HSSE2-R4MVO-051420		5/4/20	1100	AHG	6W	3	X								X														
12 HSSE2-TBLK02-051220		5/2/20	-	-	6	CCU	2	X							X														
Turn Around Time (Business Days)												Deliverable												Comments / Special Instructions					
<input checked="" type="checkbox"/> 10 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 3 Business Days* <input type="checkbox"/> 2 Business Days* <input type="checkbox"/> 1 Business Day* <input type="checkbox"/> Other _____ <small>All data available via Lablink</small>												<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NJ Reduced (Level 3) <input type="checkbox"/> Full Tier I (Level 4) <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NJ DKQP <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> MA MCP Criteria _____ <input type="checkbox"/> CT RCP Criteria _____ <input type="checkbox"/> State Forms _____ <input type="checkbox"/> EDD Format _____												<input type="checkbox"/> DOD-QSMS <p style="margin-left: 20px;">* List 13 VOC's • QC VOA.</p>					
Approved by (SGS PM): Date: _____												Commercial "A" = Results only; Commercial "B" = Results + QC Summary Commercial "C" = Results + QC Summary + Partial Raw data												http://www.sgs.com/en/terms-and-conditions					
Sample Custody must be documented below each time samples change possession, including courier delivery.																													
Relinquished by: 1 Peter Hall	Date / Time: 5/4/20 1200	Received By: 1 Feder 1215 1030 5342	Relinquished By: 2	Date / Time: 5/15/2020	Received By: 2																								
Relinquished by: 3	Date / Time:	Received By: 3	Relinquished By: 4	Date / Time:	Received By: 4																								
Relinquished by: 5	Date / Time:	Received By: 5	Custody Seal # /	<input type="checkbox"/> Intact <input type="checkbox"/> Not intact <input type="checkbox"/> Absent	Preserved where applicable <input type="checkbox"/> Therm. ID: _____																								
On Ice <input type="checkbox"/> Cooler Temp. °C _____																													

SGS Sample Receipt Summary

Job Number: JD7282

Client: AECOM, INC.

Project: ENSRILW: UTAS PLANTS 1/2 FACILITY, ROCK

Date / Time Received: 5/15/2020 10:00:00 AM

Delivery Method:

Airbill #'s:

Cooler Temps (Raw Measured) °C: Cooler 1: (2.9);

Cooler Temps (Corrected) °C: Cooler 1: (2.6);

Cooler Security **Y or N**

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature **Y or N**

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation **Y or N** **N/A**

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Documentation

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

- | | | |
|---|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> |

Test Strip Lot #s:

pH 1-12: 229517

pH 12+: 208717

Other: (Specify)

Comments

Sample Receipt Confirmation

United Technologies Corporation

Job No: JD7282

ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Project No: 60627752

Sample Number	Collected			Matrix				Client Sample ID
	Date	Time By	Received	TA	Code	Type		
JD7282-1	05/12/20	14:00 AH	05/15/20	14	AQ	Ground Water	HSSER-RAMW08-051220	
JD7282-2	05/13/20	10:10 AH	05/15/20	14	AQ	Ground Water	HSSER-RAMW07-051320	
JD7282-3	05/13/20	11:15 AH	05/15/20	14	AQ	Ground Water	HSSER-RAMW06-051320	
JD7282-4	05/13/20	12:20 AH	05/15/20	14	AQ	Ground Water	HSSER-RAMW05-051320	
JD7282-5	05/13/20	13:15 AH	05/15/20	14	AQ	Ground Water	HSSER-RAMW04-051320	
JD7282-6	05/13/20	13:25 AH	05/15/20	14	AQ	Equipment Blank	HSSER-EBLK02-051320	
JD7282-7	05/13/20	14:20 AH	05/15/20	14	AQ	Ground Water	HSSER-RAMW03-051320	
JD7282-8	05/13/20	00:00 AH	05/15/20	14	AQ	Ground Water	HSSER-DUP02-051320	
JD7282-9	05/14/20	09:45 AH	05/15/20	14	AQ	Ground Water	HSSER-RAMW02-051420	
JD7282-10	05/14/20	10:10 AH	05/15/20	14	AQ	Field Blank Water	HSSER-FBLK02-051420	
JD7282-11	05/14/20	11:00 AH	05/15/20	14	AQ	Ground Water	HSSER-RAMW01-051420	
JD7282-12	05/14/20	11:00 AH	05/15/20	14	AQ	Trip Blank Water	HSSER-TBLK02-051220	
Tests: EXTSTORAGE, V8260SL								
JD7282-9D	05/14/20	09:45 AH	05/15/20	14	AQ	Water Dup/MSD	HSSER-MSD02-051420	
JD7282-9S	05/14/20	09:45 AH	05/15/20	14	AQ	Water Matrix Spike	HSSER-MS02-051420	
Tests: V8260SL								

Tests are displayed after the samples to which they apply.

Job Number: JD7282 Client project: 60627752
PREM CLIENT
 Account: United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL Bottle Order: KR-042220-146

HC Date: 29-MAY-20 Deliv: FULT1 StateCode: IL Manager: Peter Hollatz

Sample Number	Client ID	Site	Receive	Collect	Due	Samp	Product List
			Matx	Date	TAT	Date	
JD7282-1	HSSER-RAMW08-051220	GW	15-MAY-20	12-MAY-20 14:00	14	29-MAY-20 AH	DISPQ, ENVIRO, EXTSTORAGE, V8260SL
JD7282-2	HSSER-RAMW07-051320	GW	15-MAY-20	13-MAY-20 10:10	14	29-MAY-20 AH	EXTSTORAGE, V8260SL
JD7282-3	HSSER-RAMW06-051320	GW	15-MAY-20	13-MAY-20 11:15	14	29-MAY-20 AH	EXTSTORAGE, V8260SL
JD7282-4	HSSER-RAMW05-051320	GW	15-MAY-20	13-MAY-20 12:20	14	29-MAY-20 AH	EXTSTORAGE, V8260SL
JD7282-5	HSSER-RAMW04-051320	GW	15-MAY-20	13-MAY-20 13:15	14	29-MAY-20 AH	EXTSTORAGE, V8260SL
JD7282-6	HSSER-EBLK02-051320	WEB	15-MAY-20	13-MAY-20 13:25	14	29-MAY-20 AH	EXTSTORAGE, V8260SL
JD7282-7	HSSER-RAMW03-051320	GW	15-MAY-20	13-MAY-20 14:20	14	29-MAY-20 AH	EXTSTORAGE, V8260SL
JD7282-8	HSSER-DUP02-051320	GW	15-MAY-20	13-MAY-20 00:00	14	29-MAY-20 AH	EXTSTORAGE, V8260SL
JD7282-9	HSSER-RAMW02-051420	GW	15-MAY-20	14-MAY-20 09:45	14	29-MAY-20 AH	EXTSTORAGE, V8260SL
JD7282-9D	HSSER-MSD02-051420	WDP	15-MAY-20	14-MAY-20 09:45	14	29-MAY-20 AH	V8260SL
JD7282-9S	HSSER-MS02-051420	WMS	15-MAY-20	14-MAY-20 09:45	14	29-MAY-20 AH	V8260SL
JD7282-10	HSSER-FBLK02-051420	WFB	15-MAY-20	14-MAY-20 10:10	14	29-MAY-20 AH	EXTSTORAGE, V8260SL
JD7282-11	HSSER-RAMW01-051420	GW	15-MAY-20	14-MAY-20 11:00	14	29-MAY-20 AH	EXTSTORAGE, V8260SL
JD7282-12	HSSER-TBLK02-051220	WTB	15-MAY-20	14-MAY-20 11:00	14	29-MAY-20 AH	EXTSTORAGE, V8260SL

EMAIL Address:
 Peter Hollatz
 AECOM, INC.
 4320 Winfield Road
 Warrenville, IL 60555 (417)882-0967

INVOICE1UD Address:
 Accounts Payable
 AECOM, INC.
 PO BOX 5604
 Glen Allen, VA 23058 (864)234-3000

Peter.Hollatz@AECOM.com

USAPIImaging@AECOM.com

PO Number: SEE BELOW

EDDS: Project ENSRILWUTC1

EMAIL

peter.hollatz@aecom.com

Job Number: JD7282 Client project: 60627752
PREM CLIENT
 Account: United Technologies Corporation

Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL Bottle Order: KR-042220-146

HC Date: 29-MAY-20 Deliv: FULT1 StateCode: IL Manager: Peter Hollatz

Sample Number	Client ID	Receive Site	Collect Matx Date	Due Date/TIME	Samp By TAT	Product List
---------------	-----------	--------------	-------------------	---------------	-------------	--------------

Distribution2 Sample Receipts Project peter.hollatz@aecon.com

Product Code Legend:
 EXTSTORAGE \$Quantity Days @ \$Price per Day
 V8260SL Volatile Organics, Special List

Matrix Code Legend:
 GW Ground Water
 WDP Water Dup/MSD
 WEB Equipment Blank
 WFB Field Blank Water
 WMS Water Matrix Spike
 WTB Trip Blank Water

Appendix B

Second Quarter 2020 Effluent Air Laboratory Analytical Reports

6/1/2020

Mr. Peter Hollatz
AECOM Environment
4320 Winfield Road

Warrenville IL 60555

Project Name: UTC-HS-Plant 1

Project #: 60627752

Workorder #: 2005511

Dear Mr. Peter Hollatz

The following report includes the data for the above referenced project for sample(s) received on 5/22/2020 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-14A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 2005511

Work Order Summary

CLIENT: Mr. Peter Hollatz
 AECOM Environment
 4320 Winfield Road
 Warrenville, IL 60555

BILL TO: Accounts Payable Austin
 AECOM
 PO Box 203970
 Austin, TX 78720

PHONE: 630 829-2736 **P.O. #:** 109672

FAX: 630-657-6305 **PROJECT #:** 60627752 UTC-HS-Plant 1

DATE RECEIVED: 05/22/2020

CONTACT: Ausha Scott

DATE COMPLETED: 06/01/2020

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	P1SVE-EFFC2-052120	Modified TO-14A	5.0 "Hg	15 psi
02A	P1SVE-EFFC3-052120	Modified TO-14A	4.5 "Hg	15 psi
02AA	P1SVE-EFFC3-052120 Lab Duplicate	Modified TO-14A	4.5 "Hg	15 psi
03A	P1SVE-EFFC1-052120	Modified TO-14A	3.5 "Hg	15 psi
04A	P2SVE-EFFC4-052120	Modified TO-14A	5.0 "Hg	15 psi
05A	P2SVE-EFFC5-052120	Modified TO-14A	7.0 "Hg	15 psi
06A	Lab Blank	Modified TO-14A	NA	NA
07A	CCV	Modified TO-14A	NA	NA
08A	LCS	Modified TO-14A	NA	NA
08AA	LCSD	Modified TO-14A	NA	NA

CERTIFIED BY:



DATE: 06/01/20

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209219, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-19-14, UT NELAP – CA009332019-11, VA NELAP - 460197, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005-013, Effective date: 10/18/2019, Expiration date: 10/17/2020.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

**LABORATORY NARRATIVE
Modified TO-14A
AECOM Environment
Workorder# 2005511**

Five 1 Liter Summa Canister samples were received on May 22, 2020. The laboratory performed analysis via modified EPA Method TO-14A using GC/MS in the full scan mode.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications. Please note that TO-14A was validated for specially treated canisters, and the use of Tedlar bags for sample collection is outside the scope of the method.

Requirement	TO-14A	ATL Modifications
Initial Calibration criteria	RSD</=30%	Follow TO-15 requirements of RSD</=30% with two compounds allowed out to </=40% RSD.
BFB absolute abundance criteria	Within 10% of that from previous day	CCV internal standard area counts are compared to ICAL, corrective action when recovery is less than 60%.
Blank acceptance criteria	<0.20 ppbv	<Reporting Limit
Sample Drying System	Nafion Dryer	Multibed hydrophobic sorbent
BFB ion abundance criteria	Ion abundance listed in Table 4 of TO-14A	Follow ion abundance criteria listed in Method TO-15

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The data contained in this report have been generated in accordance with the requirements in the United Technologies Corporation Environmental Laboratory Program CHEM_03: Analytical Minimum Standards for Laboratories, September 2016 Revision 8.0 and associated documents if applicable.

Definition of Data Qualifying Flags

Nine qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

C - Estimated calculation due to estimated sampling rate.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue



Air Toxics

Summary of Detected Compounds MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: P1SVE-EFFC2-052120**Lab ID#: 2005511-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.2	1.6	4.8	6.5
Acetone	12	24	29	56
1,1-Dichloroethane	1.2	76	4.9	310
cis-1,2-Dichloroethene	1.2	2.2	4.8	8.7
1,1,1-Trichloroethane	1.2	130	6.6	710
Trichloroethene	1.2	3.5	6.5	19
Tetrachloroethene	1.2	5.0	8.2	34

Client Sample ID: P1SVE-EFFC3-052120**Lab ID#: 2005511-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.2	3.9	4.8	16
1,1,1-Trichloroethane	1.2	67	6.5	370
Trichloroethene	1.2	3.9	6.4	21
Tetrachloroethene	1.2	3.1	8.1	21

Client Sample ID: P1SVE-EFFC3-052120 Lab Duplicate**Lab ID#: 2005511-02AA**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.2	3.8	4.8	15
1,1,1-Trichloroethane	1.2	67	6.5	370
Trichloroethene	1.2	3.8	6.4	20
Tetrachloroethene	1.2	2.9	8.1	20

Client Sample ID: P1SVE-EFFC1-052120**Lab ID#: 2005511-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.1	6.6	4.6	27
cis-1,2-Dichloroethene	1.1	1.2	4.5	4.9

Summary of Detected Compounds
MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Client Sample ID: P1SVE-EFFC1-052120

Lab ID#: 2005511-03A

1,1,1-Trichloroethane	1.1	55	6.2	300
Trichloroethene	1.1	5.3	6.2	28
Tetrachloroethene	1.1	27	7.8	180

Client Sample ID: P2SVE-EFFC4-052120

Lab ID#: 2005511-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
trans-1,2-Dichloroethene	1.2	1.2	4.8	4.8
1,1,1-Trichloroethane	1.2	18	6.6	96
Trichloroethene	1.2	1.8	6.5	9.6
Tetrachloroethene	1.2	8.7	8.2	59

Client Sample ID: P2SVE-EFFC5-052120

Lab ID#: 2005511-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.3	2.1	5.3	8.3
1,1,1-Trichloroethane	1.3	130	7.2	690
Trichloroethene	1.3	2.7	7.1	14
Tetrachloroethene	1.3	7.0	9.0	48



Air Toxics

Client Sample ID: P1SVE-EFFC2-052120

Lab ID#: 2005511-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p052714	Date of Collection:	5/21/20 9:50:00 AM	
Dil. Factor:	2.42	Date of Analysis:	5/27/20 05:34 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
1,1-Dichloroethene	1.2	1.6	4.8	6.5
Acetone	12	24	29	56
Methylene Chloride	12	Not Detected	42	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
1,1-Dichloroethane	1.2	76	4.9	310
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	2.2	4.8	8.7
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	130	6.6	710
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	3.5	6.5	19
Toluene	1.2	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	5.0	8.2	34
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: P1SVE-EFFC3-052120

Lab ID#: 2005511-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p052715	Date of Collection:	5/21/20 9:55:00 AM	
Dil. Factor:	2.38	Date of Analysis:	5/27/20 06:04 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	Not Detected	28	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
1,1-Dichloroethane	1.2	3.9	4.8	16
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	67	6.5	370
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	3.9	6.4	21
Toluene	1.2	Not Detected	4.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	3.1	8.1	21
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: P1SVE-EFFC3-052120 Lab Duplicate

Lab ID#: 2005511-02AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p052716	Date of Collection:	5/21/20 9:55:00 AM	
Dil. Factor:	2.38	Date of Analysis:	5/27/20 06:33 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	Not Detected	28	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
1,1-Dichloroethane	1.2	3.8	4.8	15
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	67	6.5	370
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	3.8	6.4	20
Toluene	1.2	Not Detected	4.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	2.9	8.1	20
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: P1SVE-EFFC1-052120

Lab ID#: 2005511-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p052717	Date of Collection:	5/21/20 10:00:00 AM	
Dil. Factor:	2.29	Date of Analysis:	5/27/20 07:03 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Acetone	11	Not Detected	27	Not Detected
Methylene Chloride	11	Not Detected	40	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
1,1-Dichloroethane	1.1	6.6	4.6	27
2-Butanone (Methyl Ethyl Ketone)	4.6	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.1	1.2	4.5	4.9
Chloroform	1.1	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.1	55	6.2	300
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	5.3	6.2	28
Toluene	1.1	Not Detected	4.3	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	27	7.8	180
Ethyl Benzene	1.1	Not Detected	5.0	Not Detected
m,p-Xylene	1.1	Not Detected	5.0	Not Detected
o-Xylene	1.1	Not Detected	5.0	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: P2SVE-EFFC4-052120

Lab ID#: 2005511-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p052718	Date of Collection: 5/21/20 10:10:00 AM		
Dil. Factor:	2.42	Date of Analysis: 5/27/20 07:32 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	Not Detected	29	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
trans-1,2-Dichloroethene	1.2	1.2	4.8	4.8
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	18	6.6	96
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	1.8	6.5	9.6
Toluene	1.2	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	8.7	8.2	59
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: P2SVE-EFFC5-052120

Lab ID#: 2005511-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p052719	Date of Collection:	5/21/20 10:15:00 AM	
Dil. Factor:	2.64	Date of Analysis:	5/27/20 08:02 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.3	Not Detected	3.4	Not Detected
Chloroethane	5.3	Not Detected	14	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.2	Not Detected
Acetone	13	Not Detected	31	Not Detected
Methylene Chloride	13	Not Detected	46	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.2	Not Detected
1,1-Dichloroethane	1.3	2.1	5.3	8.3
2-Butanone (Methyl Ethyl Ketone)	5.3	Not Detected	16	Not Detected
cis-1,2-Dichloroethene	1.3	Not Detected	5.2	Not Detected
Chloroform	1.3	Not Detected	6.4	Not Detected
1,1,1-Trichloroethane	1.3	130	7.2	690
Carbon Tetrachloride	1.3	Not Detected	8.3	Not Detected
Benzene	1.3	Not Detected	4.2	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.3	Not Detected
Trichloroethene	1.3	2.7	7.1	14
Toluene	1.3	Not Detected	5.0	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.2	Not Detected
Tetrachloroethene	1.3	7.0	9.0	48
Ethyl Benzene	1.3	Not Detected	5.7	Not Detected
m,p-Xylene	1.3	Not Detected	5.7	Not Detected
o-Xylene	1.3	Not Detected	5.7	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2005511-06A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p052713	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 5/27/20 05:05 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 2005511-07A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p052702	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	5/27/20 10:54 AM

Compound	%Recovery
Vinyl Chloride	81
Chloroethane	84
1,1-Dichloroethene	84
Acetone	80
Methylene Chloride	84
trans-1,2-Dichloroethene	88
1,1-Dichloroethane	92
2-Butanone (Methyl Ethyl Ketone)	90
cis-1,2-Dichloroethene	92
Chloroform	96
1,1,1-Trichloroethane	88
Carbon Tetrachloride	97
Benzene	91
1,2-Dichloroethane	94
Trichloroethene	96
Toluene	94
1,1,2-Trichloroethane	93
Tetrachloroethene	92
Ethyl Benzene	87
m,p-Xylene	91
o-Xylene	90

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 2005511-08A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p052704	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	5/27/20 11:49 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	77	70-130
Chloroethane	77	70-130
1,1-Dichloroethene	79	70-130
Acetone	76	70-130
Methylene Chloride	75	70-130
trans-1,2-Dichloroethene	75	70-130
1,1-Dichloroethane	84	70-130
2-Butanone (Methyl Ethyl Ketone)	82	70-130
cis-1,2-Dichloroethene	93	70-130
Chloroform	91	70-130
1,1,1-Trichloroethane	86	70-130
Carbon Tetrachloride	101	70-130
Benzene	82	70-130
1,2-Dichloroethane	86	70-130
Trichloroethene	86	70-130
Toluene	89	70-130
1,1,2-Trichloroethane	84	70-130
Tetrachloroethene	88	70-130
Ethyl Benzene	84	70-130
m,p-Xylene	86	70-130
o-Xylene	89	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 2005511-08AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

File Name:	p052707	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	5/27/20 01:17 PM
Compound	%Recovery	Method	Limits
Vinyl Chloride	79	70-130	
Chloroethane	76	70-130	
1,1-Dichloroethene	77	70-130	
Acetone	74	70-130	
Methylene Chloride	75	70-130	
trans-1,2-Dichloroethene	74	70-130	
1,1-Dichloroethane	83	70-130	
2-Butanone (Methyl Ethyl Ketone)	76	70-130	
cis-1,2-Dichloroethene	91	70-130	
Chloroform	90	70-130	
1,1,1-Trichloroethane	84	70-130	
Carbon Tetrachloride	98	70-130	
Benzene	83	70-130	
1,2-Dichloroethane	85	70-130	
Trichloroethene	85	70-130	
Toluene	88	70-130	
1,1,2-Trichloroethane	85	70-130	
Tetrachloroethene	88	70-130	
Ethyl Benzene	84	70-130	
m,p-Xylene	86	70-130	
o-Xylene	87	70-130	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method	Limits
1,2-Dichloroethane-d4	99	70-130	
Toluene-d8	103	70-130	
4-Bromofluorobenzene	101	70-130	

Analysis Request/Canister Chain of Custody

For Laboratory Use Only

180 Blue Ravine Rd. Suite B, Folsom, CA 95630

Phone (800) 985-5955; Fax (916) 351-8279

PID:

Workorder #:

2005511

page--of--

Client:

AECOM

Project Name:

URC - ITS - Plant I

Project Manager:

Peter Holitz

Sampler:

Andy Suklavsky

Site Name:

URC SER 910 Facility 1/2

Special Instructions/Notes:

Turnaround Time (Rush surcharges may apply)

Standard Rush

(specify)

Canister Vacuum/Pressure

Lab Use Only

Requested Analyses

Initial (in Hg)

Final (in Hg)

Receipt

Final (psig)
Gas: N₂ / He

TO-14A

Lab ID	Field Sample Identification(Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N ₂ / He	TO-14A
				Date	Time	Date	Time					
01A	P1SVE-EFFC2 - 052120	1L1710	-	-	-	5-21-20	0950	-28	-4.5	X		
02A	P1SVE-EFFC3 - 052120	1L2408	-	-	-	5-21-20	0955	-28	-4	X		
03A	P1SVE-EFFC1 - 052120	1L1504	-	-	-	5-21-20	1000	-29	-4	X		
04A	P2 SVE - EFFC4 - 052120	1L2592	-	-	-	5-21-20	1010	-30	-4	X		
05A	P2SVE - EFFC5 - 052120	1L1788	-	-	-	5-21-20	1015	-30	-4	X		
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Appendix C

Second Quarter 2020 Phase1/Phase 2 AS/SVE System Operations Data Sheets

2020

DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

DATE	06-26-20	06-27-20	6-28-20	6-29-20	6-30-20	7-1-20	7-2-20	7-3-20	7-4-20	7-5-20
TIME	11:00 AM	11:37 AM	4:26 PM	11:20	11:21 AM	7:11 AM	1:30 PM	7:20 AM	5:40 AM	10:23 AM
OBSERVER'S INITIALS	KA	MG	KN	A-LT	MG	MG	KA	KA	KA	MG

ALARMS

HOURS METERS

B-701 SVE (hrs)	59351	59375	59392	59423	59447	59467	59497	59515	59537	59566
C-2201 SPRG (hrs)	52938	52963	52980	53011	53036	53056	53066	53104	53127	53156
F-2501 H-XCH (hrs)	52938	52963	52980	53011	53036	53056	53066	53104	53127	53156

ANALOGS

MV-701 SVE POS (%)	27	27	27	27	27	27	27	27	27	27
PT-701 SVE (-wc)	-81.6	-81.6	-40.8	-40.1	-40.8	-40.8	-40.8	81.6	-40.8	-54.4
PT-2501 SPRG (psi)	13.9	13.9	13.4	13.8	13.4	13.4	13.9	13.9	13.8	13.3

SET POINTS

SET POINTS 2

SET POINTS 3

SET POINTS 4

MV-701 SVE POS (%) 30 30 30 30 30 30 30 30 30 30 30

2020

DAILY DOCUMENTATION SHEET
Control Panel Touch Screen

DATE	6-16-20	6-17-20	6-18-20	6-19-20	6-20-20	6-21-20	6-22-20	6-23-20	6-24-20	6-25-20
TIME	7:58 AM	8:54 AM	8:24 AM	8:18 AM	5:19 AM	9:57 AM	8:50 AM	11:00	07:12 AM	11:10 AM
OBSERVER'S INITIALS	MG	MG	MG	MG	KA	KA	MG	KA	MG	MG
ALARMS										
Shut Down Alarm Code	NA	NA								
Non-critical Alarm Code	NA	NA								
HOURS METERS										
B-701 SVE (hrs)	59108	59133	59157	59180	59201	59230	59253	59279	59299	59327
C-2201 SPRG (hrs)	52693	52719	52742	52766	52788	52816	52839	52866	52886	52914
F-2501 H-XCH (hrs)	52693	52719	52742	52766	52788	52816	52839	52866	52886	52914
ANALOGS										
MV-701 SVE POS (%)	27	27	27	27	27	27	27	27	27	27
PT-701 SVE (-wc)	-81.6	-81.6	-81.6	-40.8	-81.6	-40.8	-81.6	40.8	-40.8	-81.6
PT-2501 SPRG (psi)	13.8	13.9	14.0	13.8	14.0	13.9	14.0	14.0	13.9	13.8
SET POINTS										
PTLA-2501 SPRG (psi)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
PTHA-2501 SPRG (psi)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
SET POINTS 2										
SVON-101 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-102 SVE (min)	60	60	60	60	60	60	60	60	60	60
SVON-103 SVE (min)	180	180	180	180	180	180	180	180	180	180
SET POINTS 3										
SVON-2801 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2802 SPRG (min)	60	60	60	60	60	60	60	60	60	60
SVON-2803 SPRG (min)	180	180	180	180	180	180	180	180	180	180
SPRG DELAY (min)	0	0	0	0	0	0	0	0	0	0
SET POINTS 4										
MV-701 SVE POS (%)	30	30	30	30	30	30	30	36	30	30

DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

2020

DATE	6-6-20	6-7-20	6-8-20	6-9-20	6-10-20	6-11-20	6-12-20	6-13-20	6-14-20	6-15-20
TIME	10:47AM	5:35 AM	8:42 AM	7:30AM	12:34PM	8:02 AM	100 PM	9:56 AM	7:23 AM	8:39 AM
OBSERVER'S INITIALS	KA	ZK	MG	MG	MG	MG	KA	MG	DE	MG

ALARMS

HOURS METERS

B-701 SVE (hrs)	58871	58890	58917	58940	58969	58989	59017	59038	59060	59085
C-2201 SPRG (hrs)	52454	52473	52501	52524	52553	52572	52602	52623	52644	52670
F-2501 H-XCH (hrs)	52454	52473	52501	52524	52553	52572	52602	52623	52644	52670

ANALOGS

MV-701 SVE POS (%)	27	27	27	27	27	27	27	27	27	27	27
PT-701 SVE (-wc)	-81.6	81.6	-54.4	-81.6	-81.6	-81.6	-40.8	-81.6	-81.6	-81.6	-54.4
PT-2501 SPRG (psi)	14.0	13.9	13.5	13.9	14.1	14.1	13.9	13.9	13.8	13.5	

SET POINTS

SET POINTS 2

SET POINTS 3

SET POINTS 4

MV-701 SVE POS (%) 30 30 30 30 30 30 30 30 30 30 30

DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

2020

DATE	5-27	5-28	5-29	5-30	5-31	6-1	6-2	6-3	6-4	6-5
TIME	9:01 AM	1:43 PM	10:04 AM	12:36 PM	7:58 AM	10:10 AM	7:52 AM	1:50 PM	1:15 PM	12:35 PM
OBSERVER'S INITIALS	MG	MG	MG	MG	SF.	KA	MG	MG	MG	MG

ALARMS

HOURS METERS

B-701 SVE (hrs)	58630	58659	58679	58706	58725	58751	58773	58802	58826	58849
C-2201 SPRG (hrs)	52210	52239	52260	52287	52306	52333	52355	52385	52408	52432
F-2501 H-XCH (hrs)	52210	52239	52260	52287	52306	52333	52355	52385	52408	52432

ANALOGS

MV-701 SVE POS (%)	27	27	27	27	27	27	27	27	27	27	27
PT-701 SVE (-wc)	-54.4	-81.6	-40.8	-81.6	-40.8	-40.0	-81.6	-40.8	-81.6	-81.6	-81.6
PT-2501 SPRG (psi)	13.5	14.0	13.6	15.0	13.9	14.0	14.0	14.1	14.0	14.3	

SET POINTS

SET POINTS 2

SET POINTS 3

SET POINTS

MV-701 SVE POS (%) 30 30 30 30 30 30 30 30 30 30 30

DAILY DOCUMENTATION SHEET

Control Panel Touch Screen

2020

DATE	3-17-20	3-18-20	3-19-20	3-20-20	5-21-20	5-22-20	5-23-20	5-24-20	5-25-20	5-26-20
TIME	2:38pm	2:17pm	2:15pm	1025	0905	215pm	635am	5:49AM	631am	2:16pm
OBSERVER'S INITIALS	MG	MG	MG	A.1t	AS/KN	KA	KN	KA	KA	KA

ALARMS

HOURS METERS

B-701 SVE (hrs)	58416	58440	58464	58484	58486	58516	58532	58555	58580	58611
C-2201 SPRG (hrs)	51995	52018	52043	52063	52065	52095	52111	52135	52160	52192
F-2501 H-XCH (hrs)	51995	52018	52043	52063	52065	52095	52111	52135	52160	52192

ANALOGS

MV-701 SVE POS (%)	27	27	27	27	27	27	27	27	27	27	27
PT-701 SVE (-wc)	-54.4	-81.6	-81.6	-81.6	-54.4	-40.8	-40.8	-81.6	-81.6	-40.8	
PT-2501 SPRG (psi)	13.1	13.5	13.6	13.7	13.6	14.1	13.9	13.9	13.9	14.0	

SET POINTS

SET POINTS 2

SET POINTS 3

SET POINTS 4

MV-701 SVE POS (%) 30 30 30 30 30 30 30 30 30 30

WEEKLY DOCUMENTATION SHEET
SYSTEM COMPONENTS

220

DATE	3.9.20	3.16.20	5-21-20	6-2-20	6.8.20	6.15.20	6.22.20	6-29-20	7.6.20
TIME	1:14 pm	1:22 pm	0910	10:06 AM	8:44 AM	8:42 AM	8:54 AM	1120	11:17 AM
OBSERVER'S INITIALS	MG	MG	AS/KN	MG	MG	MG	MG	AH	KH

SYSTEM LEAKS, EXCESSIVE OR UNFAMILIAR NOISE, MOISTURE, ETC.

Comments and Notes	NA								
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SOIL VAPOR EXTRACTION (SVE)

Hours of Operation (hrs)	58223	58391	58486	58775	58917	59085	59253	59423	59591
Inlet Vacuum (-wc)	-58	-59	-58	-96	-58	-57	-97	-52	-54
Pre-Filter Vacuum (-wc)	-44.2	-44.2	-43.4	-78.3	-41.9	-41.7	-78.4	-39.0	-41.9
Post-Filter Vacuum (-wc)	-51	-49	-48	-81	-46	-47	-82	-44	-47
Outlet Pressure (wc)	11+0.8 (M2)	11.5	11	6	11	11	6	11	12
Outlet Temperature (°F)	108	108	112	164	125	132	159	134	140
Outlet Magnehelic* (in H ₂ O)	1.1	1.15	1.15	0.9	1.1	1.1	0.85	1.1	1.1
Water Level Sight Glass (in)	1"	Ø	0	Ø	Ø	Ø	Ø	Ø	- Ø

AIR SPARGE (SPRG)

Hours Operation (hrs)	51800	51969	52065	52357	52501	52670	52840	53011	53181
Oil Sight Glass (half pt.)	OK								

HEAT EXCHANGER (H-XCH)

Hours Operation (hrs)	51800	51969	52065	52357	52501	52670	52840	53011	53181
Inlet Temperature (°F)	220	214	215	245	230	235	230	240	250
Inlet Pressure (psi)	17.0	17.5	18.0	12	18.5	17.0	19	17.5	18
Outlet Temperature (°F)	104	101	102	125	114	120	111	122	119
Outlet Pressure (psi)	14.5	15	15.0	13.5	15	13.5	15	14.0	14.0
Outlet Magnehelic* (in H ₂ O)	3.55	3.60	3.50	3.30	3.30	3.60	3.35	3.20	3.30

ELECTRICAL USAGE (see display panel below main breaker and next to control panel)

Kilowatts (kwh)	286976	287842	288621	290068	290802	291657	292522	293391	294259
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* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

MONTHLY DOCUMENTATION SHEET
SVE MANIFOLD

DATE	3-20-20	5-21-20	6-29-20	7-22-20					
TIME	10:25	10:30	11:20	11:45					
INITIALS	A.H.	A.S.	A.H.	A.H.					

MAGNEHELIC GAUGE*

CELL 1	SVE-1 (in H ₂ O)	0.5	0.5	0.5	0.5				
	SVE-2 (in H ₂ O)	1.6	(AS) 1.0 ^{0.9}	0.9	0.9				
CELL 2	SVE-3 (in H ₂ O)	0.7	0.7	0.7	0.7				
	SVE-4 (in H ₂ O)	1.4	0.9	0.8	0.8				
CELL 3	SVE-5 (in H ₂ O)	1.1	0.7	0.5	1.1				
	SVE-6 (in H ₂ O)	1.4	0 ⁰ 1.0	0.9	0.9				

gauge not functioning?

VACUUM GAUGE

CELL 1	SVE-1 (-wc)	18	13	12	16				
	SVE-2 (-wc)	18	11	11	17				
CELL 2	SVE-3 (-wc)	12	11	11	11				
	SVE-4 (-wc)	10	11	11	12				
CELL 3	SVE-5 (-wc)	39	36	36	37				
	SVE-6 (-wc)	41	40	38	38				

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

MONTHLY DOCUMENTATION SHEET
AIR SPARGE MANIFOLD

DATE	3-20-20	5-21-20	6-29-20	7-20-20					
TIME	1025	1030	1120	1145					
INITIALS	R.L	AS	A.H.	4.H.					

ROTOMETER

CELL 1	AS-1 (scfm)	17.0	17.5	17.0	17.0				
	AS-2 (scfm)	18.0	18.5	16.0	17.0				
	AS-3 (scfm)	17.0	17.0	16.5	17.0				
	AS-4 (scfm)	16.5	16.5	16.0	16.0				
	AS-5 (scfm)	17.0	17.0	16.0	17.0				
	AS-6 (scfm)	20.0	19.0	19.0	19.0				
CELL 2	AS-7 (scfm)	20.0	20.5	20.0	19.0				
	AS-8 (scfm)	17.0	17.0	17.0	17.0				
	AS-9 (scfm)	11.0	11.0	15.0	11.0				
	AS-10 (scfm)	18.0	19.0	18.0	18.0				
	AS-11 (scfm)	22.0	22.0	21.0	21.0				
	AS-12 (scfm)	16.0	14.5	15.0	16.0				
CELL 3	AS-13 (scfm)	15.0	14.5	14.5	15.6				
	AS-14 (scfm)	16.0	16.0	16.0	16.0				
	AS-15 (scfm)	16.0	16.0	16.0	16.0				

PRESSURE GAUGE

CELL 1	AS-1 (psi)	14.0	13.0	13.0	13.5				
	AS-2 (psi)	13.5	13.0	12.5	13.5				
	AS-3 (psi)	13.5	12.5	11.5	11.5				
	AS-4 (psi)	13.5	13.0	13.0	13.0				
	AS-5 (psi)	13.5	13.5	11.5	13.5				
	AS-6 (psi)	13.0	13.5	11.5	13.0				
CELL 2	AS-7 (psi)	13.0	13.0	11.0	13.0				
	AS-8 (psi)	13.0	13.5	11.5	13.0				
	AS-9 (psi)	13.5	14.0	12.5	13.0				
	AS-10 (psi)	13.0	13.0	11.0	11.5				
	AS-11 (psi)	13.5	13.5	11.5	11.5				
	AS-12 (psi)	14.0	14.5	14.5	13.0				
CELL 3	AS-13 (psi)	13.0	13.0	10.0	10.5				
	AS-14 (psi)	14.0	14.0	14.0	13.0				
	AS-15 (psi)	13.5	14.0	12.0	13.5				

MONTHLY DOCUMENTATION SHEET
WELL HEAD GAUGES

DATE	9-27-19	10-18-19	11-27-19	12-09-19	1-21-20	2-25-20	3-20-20	5-21-20	6-29-20	7-22-20
TIME	0930	1330	0925	1200	0915	0800	1025	1240	1120	1145
INITIALS	A.H.	A.H.	A.H.	AS	A.H.	A.H.	A.H.	AS	A.H.	A.H.

CELL 1	AS-1 (psi)	10.99	10.84	11.07	11.10	11.12	10.69	11.12	11.32	11.22	10.90
	AS-2 (psi)	10.95	10.84	11.06	10.99	10.94	10.62	10.95	11.23	11.07	10.88
	AS-3 (psi)	11.12	11.04	11.11	11.26	11.13	10.82	11.10	11.55	11.54	11.08
	AS-4 (psi)	11.30	11.18	11.33	11.53	11.27	11.07	11.21	11.86	11.71	11.25
	AS-5 (psi)	11.20	11.16	11.23	11.84	11.41	10.90	11.95	12.18	11.98	11.95
CELL 2	AS-6 (psi)	11.60	11.42	11.83	11.67	11.66	11.09	11.12	11.60	11.97	11.38
	AS-7 (psi)	11.70	11.50	11.85	11.85	11.48	11.25	11.30	11.72	11.57	11.53
	AS-8 (psi)	11.78	11.57	11.81	11.91	11.78	10.66	11.24	11.74	11.62	11.52
	AS-9 (psi)	11.68	11.98	12.50	12.91	12.07	12.02	11.93	12.50	12.25	12.16
	AS-10 (psi)	11.64	11.45	11.64	11.77	11.69	11.26	11.21	11.58	11.59	11.50
CELL 3	AS-11 (psi)	11.34	11.29	11.40	11.30	11.31	11.12	10.80	11.36	12.31	11.25
	AS-12 (psi)	12.05	11.25	12.15	11.94	11.76	11.94	11.39	11.83	11.99	11.74
	AS-13 (psi)	12.07	11.28	12.27	12.07	12.05	11.92	11.45	11.92	11.99	11.70
	AS-14 (psi)	11.80	11.75	12.03	12.01	12.02	11.65	11.34	11.92	11.97	11.73
	AS-15 (psi)	11.88	11.70	11.90	11.99	11.87	11.64	11.37	11.85	11.74	11.74

CELL 1	SVE-1 (in H ₂ O)	4.6	4.3	4.0	3.9	4.0	4.0	4.1	4.1	4.1	4.0
	SVE-2 (in H ₂ O)	6.2	6.1	5.9	5.8	6.1	5.6	5.7	5.9	5.8	5.5
CELL 2	SVE-3 (in H ₂ O)	5.4	5.7	5.2	6.0	5.8	6.0	6.0	5.7	5.3	5.5
	SVE-4 (in H ₂ O)	5.8	5.5	5.0	4.6	4.9	4.6	5.3	5.5	5.1	5.4
CELL 3	SVE-5 (in H ₂ O)	11.5	11.9	12.8	12.4	11.9	11.5	11.5	11.3	11.5	11.6
	SVE-6 (in H ₂ O)	8.9	9.2	9.3	9.3	9.2	8.6	8.6	8.8	9.3	9.3

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	6-22-20	6-23-20	6-24-20	6-25-20	6-26-20	6-27-20	6-28-20	6-29-20	6-30-20
TIME	8:37 AM	11:00 AM	07:00 AM	10:55 AM	10:50 AM	11:42 AM	4:31 PM	12:00	11:13 AM
OBSERVER'S INITIALS	MG	KP	MG	MG	KR	MG	KR	WJ	MG

WEATHER CONDITIONS

Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	74°F OVERCAST, LIGHT RAIN	80°F SUNNY	68°F CLOUDY	80°F SUNNY, LIGHT BREEZE	76°F RAIN CLOUDY	86°F MOSTLY SUNNY	70°F CLEAR	92°F Clear	89°F MOSTLY SUNNY + BREEZY
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ALARMS

Alarm Code	NA	NA	NA	NA	NA	ENTRY 64 OLA-8201 PNL ALRM #12PAH-701 SVE ALRM		NA	NA
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P&ID

PDT-701 SVE (-wc)	0.03	0.05	0.10	0.03	0.07	CD P	0	0.03	0.04
PT-701 SVE (-wc)	-62	-61	-62	-59	-66	CS SC	CS	-60	-63
PT-702 SVE (-wc)	58.6	58.7	58.9	57.6	57.0	ST ET	ST	56.7	56.6
PT-2201 SPRG (psi)	13.0	14.5	13.1	13.2	13.2	3 P	3	13.1	13.0
P-401 PUMP (cycles)	91	91	91	91	91	P R S M A T		91	91

P&ID2

PDT-801 SVE (-wc)	0.03	0.00	0.05	0.02	0.00	MA R	0	0.00	0.01
PT-801 SVE (-wc)	-415	-415	-415	-415	-415	2 G	2	-356	-346
PT-802 SVE (-wc)	58.0	57.3	59.1	57.9	58.6	V D	V	56	56.1
PT-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	D		0.0	0.0
P-501 PUMP (cycles)	1679	1679	1679	1679	1679	8 C N		1679	1679

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	6-22-20	6-23-20	6-24-20	6-25-20	6-26-20	6-27-20	6-28-20	6-29-20	6-30-20
TIME	8:37AM	11:00AM	07:00AM	10:55AM	10:50AM	11:42 AM	4:31 AM	12:00	11:13 AM
OBSERVER'S INITIALS	MG	LA	MG	MG	KA	MG	KA	KA	MG

HOURS METERS

B-701 SVE (hrs)	25247	25273	25293	25321	25345			25384	25407
C-2201 SPRG (hrs)	23604	23604	23604	23604	23604			23604	23604
C-2202 SPRG (hrs)	24873	24900	24920	24948	24971			25011	25034
B-801 SVE (hrs)	26489	26516	26536	26564	26588	Y	S	26627	26650
C-2301 SPRG (hrs)	26084	26110	26130	26158	26182	S	S	26221	26245
C-2302 SPRG (hrs)	26252	26279	26299	26327	26350	T	T	26390	26413

SET POINTS

PAL-701 SVE (wc)	-20	-20	-20	-20	-20	Y	S	-20	-20
PAH-702 SVE (wc)	100	100	100	100	100.0	Y	.	100.0	100
PAL-702 SVE (wc)	10	10	10	10	10.0			10.0	10
PAH-2201 SPRG (psi)	30	30	30	30	30.0	Y	0	30.0	30
PAL-2201 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	Y	E	0.0	0.0
PAL-801 SVE (wc)	-25	-25	-25	-25	-25	Y	Z	-25	-25
PAH-802 SVE (wc)	100	100	100	100	100.0	Y	.	100.0	100
PAL-802 SVE (wc)	10	10	10	10	10.0	Y	.	10.0	10
PAH-2301 SPRG (psi)	30	30	30	30	30.0	Y	.	30.0	30
PAL-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	Z	.	0.0	0.0
SV-2801 SPRG (min)	40	40	40	40	40			40.0	40
SV-2802 SPRG (min)	20	20	20	20	20			20.0	20
SV-2901 SPRG (min)	20	20	20	20	20			20.0	20
SV-2902 SPRG (min)	20	20	20	20	20			20.0	20

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	6-14-20	6-15-20	6-16-20	6-17-20	6-18-20	6-19-20	6-20-20	6-21-20
TIME	7:35 AM	8:21 AM	7:52 AM	8:49 AM	8:18 AM	1:45	8:06 AM	5:22 AM
OBSERVER'S INITIALS	DE	MG	MG	MG	MG	HA	MG	KA

WEATHER CONDITIONS

Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)		62°F SUNNY	65°F SUNNY	63°F PARTLY CLOUDY	74°F SUNNY	88°F Sunny	79°F SUNNY	82°F Cloudy	80°F SUNNY
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ALARMS

Alarm Code	Y	ENTRY #64 PAL-701 SVE ALM	S	S	S	NA	NA	NA	NA
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P&ID

PDT-701 SVE (-wc)	S	S	S	S	S	0.00	0.00	0.00	0.00
PT-701 SVE (-wc)	T	Y	T	T	T	-5-3	-57	-63	-64
PT-702 SVE (-wc)	E	S	E	E	E	59.1	58.2	57.5	56.5
PT-2201 SPRG (psi)	M	T	M	M	M	13.0	12.9	13.1	13.4
P-401 PUMP (cycles)		E				91	91	91	91

P&ID2

PDT-801 SVE (-wc)	D		D	D	D	0.04	0.02	0.04	0.01
PT-801 SVE (-wc)	D	D	D	D	D	-415	-415	-415	-415
PT-802 SVE (-wc)	W	W	W	W	W	56.0	57.6	58.0	57.0
PT-2301 SPRG (psi)	N	W	N	N	N	0.0	0.0	0.0	0.0
P-501 PUMP (cycles)		N				1679	1679	1679	1679

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	6-14-20	6-15-20	6-16-20	6-17-20	6-18-20	6-18-20	6-19-20	6-20-20	6-21-20
TIME	7:35AM	8:21 AM	7:52 AM	8:49 AM	8:18 AM	11:40	8:06 AM	5:22 AM	9:45 AM
OBSERVER'S INITIALS	DE	MG	MG	MG	MG	AH	MG	KA	KA

HOURS METERS

B-701 SVE (hrs)	S	S	S	S	S	25154	25174	25196	25224
C-2201 SPRG (hrs)	Y	Y	Y	X	Y	23604	23604	23604	23604
C-2202 SPRG (hrs)	Y	S	Y	X	Y	24781	24801	24822	24851
B-801 SVE (hrs)	S	S	S	S	S	26397	26417	26438	26467
C-2301 SPRG (hrs)	S	T	S	S	T	25991	26012	26033	26061
C-2302 SPRG (hrs)		E	T	T	T	26160	26180	26201	26229

SET POINTS

	M	E	E	E	-20	-20	-20	-20
PAL-701 SVE (wc)	T		M	M	-20	-20	-20	-20
PAH-702 SVE (wc)	D		D	D	100	100	100	100.0
PAL-702 SVE (wc)	E	D	D	D	10	10	10	10.0
PAH-2201 SPRG (psi)	0	0	D	D	30	30	30	30.0
PAL-2201 SPRG (psi)	M	0	W	0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	W	W	0	0	-25	-25	-25	-25
PAH-802 SVE (wc)	D	W	N	W	100	100	100	100.0
PAL-802 SVE (wc)	0	N	W	W	10	10	10	10.0
PAH-2301 SPRG (psi)	0	N	S	N	30	30	30	30.0
PAL-2301 SPRG (psi)	W	S	N	N	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)					40	40	40	40
SV-2802 SPRG (min)	N	S	S	S	20	20	20	20
SV-2901 SPRG (min)					20	20	20	20
SV-2902 SPRG (min)					20	20	20	20

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	6-6-20	6-7-20	6-8-20	6-9-20	6-9-20	6-10-20	6-11-20	6-12-20	6-13-20
TIME	10:40 AM	5:39 AM	8:20 AM	9:12 AM	7:18 AM	12:24 PM	7:53 AM	12:50 PM	9:48 AM
OBSERVER'S INITIALS	KA	KA	MG	MG	MG	MG	MG	KA	MG

WEATHER CONDITIONS

Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	76°F SUNNY	80°F Partly Cloudy	81°F SUNNY		81°F SUNNY	88°F SUNNY + WINDY	80°F SUNNY	90°F SUNNY	82°F SUNNY
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ALARMS

Alarm Code	NONE	NONE	NONE		NONE	NONE	NONE	NONE	NONE
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P&ID

PDT-701 SVE (-wc)	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
PT-701 SVE (-wc)	-55	-55	-57		-61	-66	-60	-57	-57
PT-702 SVE (-wc)	59.2	60.7	59.0		58.1	55.8	59.1	58.0	59.2
PT-2201 SPRG (psi)	14.8	16.2	14.5		14.7	14.7	14.7	14.6	15.9
P-401 PUMP (cycles)	91	91	91		91	91	91	91	91

P&ID2

PDT-801 SVE (-wc)	0.02	0.03	0.01		0.00	0.00	0.00	0.00	0.00
PT-801 SVE (-wc)	-415	-415	-415		-415	-415	-415	-415	-415
PT-802 SVE (-wc)	57.0	59.0	57.4		56.5	55.5	58.7	57.4	59.2
PT-2301 SPRG (psi)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
P-501 PUMP (cycles)	1679	1679	1679		1679	1679	1679	1679	1679

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	6-6-20	6-7-20	6-8-20	X	6-9-20	6-10-20	6-11-20	6-12-20	6-13-20
TIME	10:40 AM	5:39 AM	8:20 AM	X	7:18 AM	12:24 PM	7:53 AM	12:56 PM	9:48 AM
OBSERVER'S INITIALS	KA	KA	MG	X	MG	MG	MG	KA	MG

HOURS METERS

B-701 SVE (hrs)	24973	24992	25019	{ MG }	25042	25071	25090	25119	25140
C-2201 SPRG (hrs)	23424	23443	23470		23493	23522	23541	23570	23591
C-2202 SPRG (hrs)	24600	24619	24645		24668	24697	24717	24746	24767
B-801 SVE (hrs)	26216	26235	26261		26284	26313	26333	26362	26383
C-2301 SPRG (hrs)	25810	25829	25856		25879	25908	25928	25956	25977
C-2302 SPRG (hrs)	25979	25998	26024		26047	26076	26096	26125	26146

SET POINTS

PAL-701 SVE (wc)	-20	-20	-20	{ }	-20	-20	-20	-20	-20
PAH-702 SVE (wc)	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0
PAL-702 SVE (wc)	10.0	10.0	10.0		10.0	10.0	10.0	10.0	10.0
PAH-2201 SPRG (psi)	30.0	30.0	30.0		30.0	30.0	30.0	30.0	30.0
PAL-2201 SPRG (psi)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	-25	-25	-25		-25	-25	-25	-25	-25
PAH-802 SVE (wc)	100.0	100.0	100.0	{ }	100.0	100.0	100.0	100.0	100.0
PAL-802 SVE (wc)	10.0	10.0	10.0		10.0	10.0	10.0	10.0	10.0
PAH-2301 SPRG (psi)	30.0	30.0	30.0		30.0	30.0	30.0	30.0	30.0
PAL-2301 SPRG (psi)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)	40	40	40		40	40	40	40	40
SV-2802 SPRG (min)	20	20	20		20	20	20	20	20
SV-2901 SPRG (min)	20	20	20	{ }	20	20	20	20	20
SV-2902 SPRG (min)	20	20	20		20	20	20	20	20

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	05-28-2020	05-29-2020	05-30-2020	5-31-20	6-1-20	6-2-20	6-3-20	6-4-20	6-5-20
TIME	1:33 PM	9:56 AM	12:27 PM	7:41 AM	10:06 AM	7:37 AM	1:11 PM	12:58 PM	12:24 PM
OBSERVER'S INITIALS	MG	MG	MG	DE	KA	MG	MG	MG	MG

WEATHER CONDITIONS

Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	83°F LIGHT RAIN, BREEZY, OVERCAST	81°F SUNNY	79°F CLOUDY, WINDY	75°F SUNNY	82°F CLOUDY RAIN	81°F SUNNY	82°F PARTLY CLOUDY	94°F SUNNY	90°F CLOUDY
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ALARMS

Alarm Code	NA								
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P&ID

PDT-701 SVE (-wc)	0.00	0.02	0.03	0.03	0.03	0.00	0.02	0.00	0.00
PT-701 SVE (-wc)	-52	-51	-49	-47	-51	-55	-57	-57	-58
PT-702 SVE (-wc)	61.1	62.1	62.1	64.6	62.7	60.6	59.5	57.8	58.5
PT-2201 SPRG (psi)	16.3	16.0	15.2	15.4	15.2	16.0	14.8	15.5	14.8
P-401 PUMP (cycles)	91	91	91	91	91	91	91	91	91

P&ID2

PDT-801 SVE (-wc)	0.04	0.00	0.00	0.05	0.05	0.00	0.02	0.00	0.00
PT-801 SVE (-wc)	-415	-415	-415	-415	-415	-415	-415	-415	-415
PT-802 SVE (-wc)	56.6	57.8	58.3	59.4	59.2	57.2	56.4	55.8	56.4
PT-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P-501 PUMP (cycles)	1679	1679	1679	1679	1679	1679	1679	1679	1679

DAILY DOCUMENTATION SHEET

BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	05-28-2020	05-29-2020	05-30-2020	5-31-20	6-1-20	6-2-20	6-3-20	6-4-20	6-5-20
TIME	1:33 pm	9:56 AM	12:27 PM	7:41 AM	10:06 AM	7:37 AM	1:11 PM	12:58 PM	12:24 PM
OBSERVER'S INITIALS	MG	MG	MG	DE	KA	MG	MG	MG	MG

HOURS METERS

B-701 SVE (hrs)	24760	24781	24807	24826	24853	24874	24904	24928	24951
C-2201 SPRG (hrs)	23211	23232	23258	23277	23303	23325	23355	23378	23402
C-2202 SPRG (hrs)	24387	24407	24434	24453	24479	24501	24531	24554	24577
B-801 SVE (hrs)	26003	26023	26050	26069	26095	26117	26147	26170	26194
C-2301 SPRG (hrs)	25598	25618	25644	25664	25690	25712	25742	25765	25788
C-2302 SPRG (hrs)	25766	25786	25813	25832	25858	25880	25910	25933	25956

SET POINTS

PAL-701 SVE (wc)	-20	-20	-20	-20	-20	-20	-20	-20	-20
PAH-702 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-702 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2201 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2201 SPRG (psi)	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	-25	-25	-25	-25	-25	-25	-25	-25	-25
PAH-802 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-802 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2301 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)	40	40	40	40	40	40	40	40	40
SV-2802 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2901 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2902 SPRG (min)	20	20	20	20	20	20	20	20	20

DAILY DOCUMENTATION SHEET

2020

BUILDINGS 1 - 2

Control Panel Touch Screen

DATE	3-19-20	3-20-20	5-21-20	5-22-20	5-23-20	5-24-20	5-25-20	5-26-20	5-27-20
TIME	2:09 pm	1130	0918	2:05PM	6:40 AM	5:54 AM	6:17 AM	2:06 PM	8:51 AM
OBSERVER'S INITIALS	MG	RL	AS/KN	KA	PIN	KA	KN	KA	MG

WEATHER CONDITIONS

Indoor Room Temp (°F), Outdoor Conditions: (Rain, Snow, Clear, Overcast, etc.)	80°F RAIN	80°F Cloudy	CLEAR	82 Cloudy	80 Cloudy	82 Partly Cloudy	84 Partly Cloudy	92 Sunny	80°F Overcast
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ALARMS

Alarm Code	NA								
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P&ID

PDT-701 SVE (-wc)	0.14	0.09	0.11	0.06	0.08	0.04	0.03	0.00	0.00
PT-701 SVE (-wc)	-50	-43	-38	-41	-43	-49	-49	-47	-49
PT-702 SVE (-wc)	64.4	66.9	68.7	65.1	66.2	64.8	63.8	61.9	62.6
PT-2201 SPRG (psi)	15.5	15.5	18.0	16.6	16.2	16.1	16.3	15.8	15.5
P-401 PUMP (cycles)	91	91	91	91	91	91	91	91	91

P&ID2

PDT-801 SVE (-wc)	0.03	0.03	0.05	0.01	0.04	0.03	0.00	0.00	0.00
PT-801 SVE (-wc)	-106	-98	-415	-415	-415	-415	-415	-415	-415
PT-802 SVE (-wc)	56.7	59.6	59.4	57.7	58.6	58.1	57.4	55.1	57.1
PT-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P-501 PUMP (cycles)	1679	1679	1679	1679	1679	1679	1679	1679	1679

DAILY DOCUMENTATION SHEET

2020

BUILDINGS 1 - 2
Control Panel Touch Screen

DATE	3-19-20	3-20-20	5-21-20	3-22-20	5-23-20	5-24-20	5-25-20	5-26-20	5-27-20
TIME	2:09 pm	1120	0918	205.8M	6:40 AM	5:54 AM	6:17 AM	2:06 PM	8:51 AM
OBSERVER'S INITIALS	MG	AH	AS/kw	KA	KN	VA	KN	KA	MG

HOURS METERS

B-701 SVE (hrs)	24565	24587	24587	24617	24638	24657	24681	24713	24732
C-2201 SPRG (hrs)	23016	23038	23038	23068	23092	23108	23132	23164	23182
C-2202 SPRG (hrs)	24192	24213	24213	24243	24264	24283	24308	24339	24358
B-801 SVE (hrs)	25808	25830	25830	25860	25881	25899	25924	25955	25974
C-2301 SPRG (hrs)	25403	25424	25424	25454	25478	25494	25518	25550	25569
C-2302 SPRG (hrs)	25571	25593	25593	25622	25647	25662	25687	25718	25737

SET POINTS

PAL-701 SVE (wc)	-20	-20	-20	-20	-20	-20	-20	-20	-20
PAH-702 SVE (wc)	100.0	100.0	100.0	-100.0	KA 100.0	100.0	100.0	100.0	100.0
PAL-702 SVE (wc)	10.0	10.0	10.0	-10.0	+10.0	10.0	10.0	10.0	10.0
PAH-2201 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2201 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAL-801 SVE (wc)	-25	-25	-25	-25	-25	-25	-25	-25	-25
PAH-802 SVE (wc)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAL-802 SVE (wc)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PAH-2301 SPRG (psi)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PAL-2301 SPRG (psi)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SV-2801 SPRG (min)	40	40	40	40	40	40	40	40	40
SV-2802 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2901 SPRG (min)	20	20	20	20	20	20	20	20	20
SV-2902 SPRG (min)	20	20	20	20	20	20	20	20	20

WEEKLY DOCUMENTATION SHEET
BUILDING 1
SYSTEM COMPONENTS

2020

DATE	03-16-20	5-21-20	6-2-20	6-8	6-15	6-18-20	6-22-20	6-29-20	7-6-20
TIME	1:47 pm	0922	10:35 AM	9:12 AM	8:29 AM	1145	9:17 AM	12:00	10:20 am
OBSERVER'S INITIALS	MG	AS/KN	MG	MG	MG	TA.14	MG	AK.H	KA

SYSTEM LEAKS, EXCESSIVE OR UNFAMILIAR NOISE, MOISTURE, ETC.

Comments and Notes	NA	NA	NA	NA	PAL-701 SVE ALM	NA	NA	NA	NA
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SOIL VAPOR EXTRACTION (SVE) BLOWER B-701

Pre-Filter Vacuum (-wc)	-37	-32	-45	-49	S	-45	-52	-50	-55
Post-Filter Vacuum (-wc)	-57	-55	-59	-59	S	-58	-58	-62	-58
Inlet Magnehelic* (in H ₂ O)	0.475	0.4	0.30	0.1	Y	0.1	0.2	0.2	0.2
Inlet Vacuum (-wc)	-41.1	-34.7	-48.0	-52.0	S	-49.5	-56.8	-52.6	-52.4

SOIL VAPOR EXTRACTION (SVE) HEAT EXCHANGER (H-XCH)

Inlet Pressure (wc)	31	31	31	31	T	30	30	30	30
Inlet Temperature (°F)	100	115	135	130	E	135	129	145	145
Outlet Pressure (wc)	5.0	7.0	7.0	6.5	M	4.0	4.5	5.0	5.0
Outlet Temperature (°F)	83	108	110	108		110	98	116	116
Water Level Sight Glass (in)	4"	0	Ø	Ø	D	Ø	Ø	Ø	Ø

AIR SPARGE (SPRG) COMPRESSOR C-2201

Upper Oil Sight Glass (half pt.)	OK	OK	OK	OK	O	OK	OK	OK	OK
Lower Oil Sight Glass (half pt.)	OK	OK	OK	OK	W	OK	OK	OK	OK

AIR SPARGE (SPRG) HEAT EXCHANGER (H-XCH)

Inlet Pressure (psi)	17.25	16.5	15.5	14.5	↗	13.0	14	12.5	13
Inlet Temperature (°F)	195	210	224	211	↗	200	185	200	200
Outlet Pressure (psi)	16.5	16.5	16.0	15.5	↗	15.5	15.5	18.5	15
Outlet Temperature (°F)	103	110	120	114	↗	100	86	102	100

C2201
off

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

WEEKLY DOCUMENTATION SHEET
BUILDING 2
SYSTEM COMPONENTS

2020

DATE	5-21-20	6-2-20	6-8-20	6-15-20	6-18-20	6-22-20	6-29-20	7-6-20	7-13-20
TIME	0925	10:22 AM	9:03 AM	8:34 AM	11:40	9:08 AM	11:45	11:03 AM	10:01 AM
OBSERVER'S INITIALS	AS/KN	MG	MG	MG	A.II	MG	A.II	KA	MG

SYSTEM LEAKS, EXCESSIVE OR UNFAMILIAR NOISE, MOISTURE, ETC.

Comments and Notes	AS	NA	NA	PAL-701 SVE ALM	NA	NA	NA	NA	NA
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SOIL VAPOR EXTRACTION (SVE) BLOWER B-801

Pre-Filter Vacuum (-wc)	-24	-20	-20	S	-20	-19	-20	-20	-19
Post-Filter Vacuum (-wc)	-25	-24	-24	S	-24	-21	-21	-21	-23
Inlet Magnehelic* (in H ₂ O)	0.3	0.1	0.1	S	0.1	0.2	0.15	0.2	Ø
Inlet Vacuum (-wc)	-25.4	-21.9	-22.1	B M	-22.2	-21.4	20.6	20.4	-21.4

SOIL VAPOR EXTRACTION (SVE) HEAT EXCHANGER (H-XCH)

Inlet Pressure (wc)	-51	53	54	D	47	56	54	54	54
Inlet Temperature (°F)	108	121	120	Ø	125	113	130	130	118
Outlet Pressure (wc)	-3	1.5	1.5	Ø	2.0	2	1.0	1.0	1.0
Outlet Temperature (°F)	102	100	101	W	108	99	114	115	101
Water Level Sight Glass (in)	Ø	Ø	Ø	N	Ø	Ø	Ø	Ø	Ø

AIR SPARGE (SPRG) COMPRESSOR C-2301

Upper Oil Sight Glass (half pt.)	OK	OK	OK	{	OK	OK	ULS	OK	OK
Lower Oil Sight Glass (half pt.)	Slightly less than 1/2	Slightly less than 1/2	Slightly less than 1/2		Slight less	~1/2	11"	OK	Slightly less than 1/2

AIR SPARGE (SPRG) HEAT EXCHANGER (H-XCH)

Inlet Pressure (psi)	16.5	16.75	17	{	16.5	17	16.5	16.5	15
Inlet Temperature (°F)	225	235	233		235	225	235	225	199
Outlet Pressure (psi)	15.0	16.0	17		15.5	17	14.5	14.5	16
Outlet Temperature (°F)	128	130	129		135	124	140	140	108

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading.

MONTHLY DOCUMENTATION SHEET
BUILDING 1
SVE MANIFOLD

DATE	10-18-19	11-27-19	12-9-19	1-21-20	2-25-20	3-20-20	5-21-20	6-29-20	7-22-20	
TIME	1500	1010	1045	0845	0930	1130	1110	1206	1306	
INITIALS	R.V	A.H	AS	A.H	A.H	A.H	AS	A.H.	A.H.	

System System MAGNEHELIC GAUGE*

SVE-15 (in H ₂ O)	System Building	Down	Down	0.03 25 AII	0.03	0.00	0	0	0	
SVE-14 (in H ₂ O)	Down			0.62 28 AII	0.17	0.17	1.86	0.78	0.05	
SVE-13 (in H ₂ O)				1.34 28 AII	0.11	0.10	0	0.46	0.50	
SVE-11 (in H ₂ O)				0.12 27 AII	0.23	0.15	0.21	0.34	0.43	
SVE-9 (in H ₂ O)				0.20 25 AII	0.05	0.04	0.22	0.44	0.70	

VACUUM GAUGE

SVE-15 (-wc)				25 0.03 AII	32	40	32	44 0.44 AII	60	
SVE-14 (-wc)				28 44 AII	35	42	34	44	64	
SVE-13 (-wc)				28 44 AII	36	43	35	52	65	
SVE-11 (-wc)		↓	↓	14 27 AII	20	20	18	24	28	
SVE-9 (-wc)		↓	↓	25 0.05 AII	32	40	31	47	59	

* Keep plastic pinch valves on tubing to magnehelic gauge closed except when taking a reading

MONTHLY DOCUMENTATION SHEET
BUILDING 1 UPPER CELL
AIR SPARGE MANIFOLD

DATE	9-27-19	10-18-19	11-27-19	12-9-19	1-21-20	2-25-20	3-20-20	5-21-20	6-29-20	7-22-20
TIME	1155	1500	1010	1045	0845	0930	1130	1150	1200	1300
INITIALS	A.H.	A.H.	A.H.	AS	A.H.	A.H.	A.H.	AS	A.H.	A.H.

UPPER CELL	AS-47 (scfm)	Systdown	Systdown	Systdown	Systdown	Systdown	ROTOMETER	Systdown	Systdown	Systdown	
		AS-38 (scfm)	AS-37 (scfm)	AS-23 (scfm)	AS-24 (scfm)	AS-39 (scfm)	AS-48 (scfm)	AS-52 (scfm)	AS-56 (scfm)	AS-54 (scfm)	AS-58 (scfm)
						0	0	0	0	0	0
						5.0	8.0	8.0	8.0	5.0	5.0
						17.5	17.5	17.0	16.5	9.0	10.5
						15.0	14.5	14.0	13.0	6.0	7.0
						19.0	17.5	17.0	16.0	7.0	8.0
						16.5	15.5	15.0	14.0	7.0	7.0
						19.0	18.5	19.0	18.5	9.0	10.0
						17.5	17.5	18.0	17.0	10.0	10.0
						16.5	16.0	16.0	15.5	9.0	9.0
						15.0	13.0	14.0	18.5	6.0	7.0
						18.0	17.0	17.5	17.5	8.5	9.0

UPPER CELL	AS-47 (psi)	Systdown	Systdown	Systdown	Systdown	Systdown	PRESSURE GAUGE	Systdown	Systdown	Systdown	
		AS-38 (psi)	AS-37 (psi)	AS-23 (psi)	AS-24 (psi)	AS-39 (psi)	AS-48 (psi)	AS-52 (psi)	AS-56 (psi)	AS-54 (psi)	AS-58 (psi)
						0	0	0	0	0	0
						16.0	20.0	17.0	14.0	14.0	14.5
						10.0	10.0	10.0	10.0	10.0	11.0
						14.5	14.0	14.0	14.0	13.5	14.5
						15.0	14.5	15.0	15.0	14.5	15.5
						14.0	13.5	13.5	14.0	13.5	14.0
						14.0	13.0	13.0	13.0	13.0	14.0
						13.0	13.0	12.5	13.0	13.0	14.0
						13.0	13.0	13.0	13.0	13.0	14.0
						15.0	17.0	17.0	14.0	13.0	14.0
		✓	✓	✓	✓	10.	9.0	9.0	8.5	8.0	9.0

MONTHLY DOCUMENTATION SHEET
BUILDING 1 LOWER CELL
AIR SPARGE MANIFOLD

DATE	7-29-19	9-27-19	10-18-19	11-27-19	12-9-19	1-21-20	2-25-20	3-20-20	5-21-20	6-29-20
TIME	1345	1155	1500	1010	1045	0845	0930	1130	1110	1200
INITIALS	R.H.	R.H.	R.H.	R.H.	AS	R.H.	R.H.	R.H.	AS	R.H.

LOWER CELL	AS-49 (scfm)	System down		System down		System down		System down		ROTOMETER	
		System up	System down	System up	System down						
	AS-49 (scfm)	9.5				System down	10	10.5	11.0	10.5	5.5
	AS-44 (scfm)	12.5					13.0	14.0	13.5	14.0	8.0
	AS-31 (scfm)	18.5					19.5	20.0	20.0	19.5	11.0
	AS-32 (scfm)	18.0					18.5	19.5	19.0	18.5	11.0
	AS-45 (scfm)	11.5					13.0	13.0	12.5	12.0	7.0
	AS-51 (scfm)	12.0					14.0	13.5	14.0	13.5	7.5
	AS-55 (scfm)	15.0					16.5	16.5	16.0	16.0	10.0
	AS-53 (scfm)	13.0					16.0	14.5	15.0	14.0	6.5
	AS-59 (scfm)	10.5					11.0	11.5	11.0	11.0	5.5
	AS-57 (scfm)	12.0					15.5	14.0	14.5	13.0	0.0
	AS-50 (scfm)	11.5					11.5	11.5	12.0	10.5	6.0

LOWER CELL	AS-49 (psi)	PRESSURE GAUGE									
		System up	System down								
	AS-49 (psi)	12.5				13.0	12.0	12.5	12.5	12.5	12.5
	AS-44 (psi)	14.5				15.0	14.5	15.0	15.0	15.0	13.5
	AS-31 (psi)	13.5				14.0	13.0	13.5	13.5	13.5	13.0
	AS-32 (psi)	13.5				13.0	13.0	16.0	11.5	11.0	
	AS-45 (psi)	14.5				15.0	14.0	14.5	15.0	14.0	
	AS-51 (psi)	13.0				13.0	12.5	13.0	13.0	12.5	
	AS-55 (psi)	13.0				13.5	12.5	13.0	13.0	13.0	
	AS-53 (psi)	13.5				14.0	13.5	13.5	14.0	13.5	
	AS-59 (psi)	13.5				14.5	13.5	14.0	14.0	13.5	
	AS-57 (psi)	14.0	↓	↓	↓	14.5	14.0	14.0	14.5	12.5	
	AS-50 (psi)	15.0	↓	↓	↓	16.0	15.0	15.5	15.5	14.0	

MONTHLY DOCUMENTATION SHEET
BUILDING 1
PID MEASUREMENTS

DATE	2-25-20	3-20-20	5-21-20	6-29-20	7-22-20							
TIME	0930	1130	1110	1206	1300							
INITIALS	A.H.	H.H.	AS	A.H.	H.H.							

SVE Effluent	0.0	0.0	0.0	0.0	0.0							
SVE - 15	moisture	moisture	moisture	0.0	0.0							
SVE - 14	/	/	/	0.0	0.0							
SVE - 13				0.0	0.0							
SVE - 11				0.0	0.0							
SVE - 9	↓	↓	↓	0.0	0.0							
Exhaust	0.0	0.0	0.0	0.0	0.0							

MONTHLY DOCUMENTATION SHEET
BUILDING 2
SVE MANIFOLD

DATE	10-18-19	11-27-19	12-09-19	1-21-20	2-25-20	3-20-20	5-21-20	10-29-20	7-22-20	
TIME	1405	1005	1020	0855	0915	1120	1100	1145	1250	
INITIALS	A.H.	A.H.	AS	A.H.	A.H.	A.H.	AS	A.H.	A.H.	

MAGNEHELIC GAUGE*

SVE-10 (in H ₂ O)	0.04	0.14	0.10	0.07	1.25	0.3	0.05	0.23	0.06	
SVE-12 (in H ₂ O)	0.34	0.26	0.25	0.36	0.82	1.1	0.21	0.89	0.45	
SVE-8 (in H ₂ O)	0.02	0.13	0.11	0.25	0.17	0.18	0.15	0.45	0.08	
SVE-7 (in H ₂ O)	0.20	0.05	0.05	0.0	0.01	0.0	* gauge broken	0.03	0.02	

VACUUM GAUGE

↑
no needle
gauge?

SVE-10 (-wc)	20	30	35	58	56	55	0	0	10	
SVE-12 (-wc)	20	25	28	12	35	44	23	19	18	
SVE-8 (-wc)	25	23	26	25	34	40	25	20	20	
SVE-7 (-wc)	60	50	49	60	54	54	53	41	30	

ELECTRICAL USAGE

Kilowatts (kwh)	501621.00	545954.10	—	568299.10	632545.70	681113.30	692168.80	754084.00	788467.10	
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↑
did not obtain
no access to
building

* Keep plastic pinch valves on tubing to manehelic gauge closed except when taking a reading

MONTHLY DOCUMENTATION SHEET
BUILDING 2 UPPER CELL
AIR SPARGE MANIFOLD

DATE	10-18-19	11-27-19	12-09-19	1-21-20	2-25-20	3-20-20	5-21-20	6-29-20	7-22-20	
TIME	1405	1005	1020	0855	0915	1120	105-1100	1145	1250	
INITIALS	A.H.	A.H.	A.S.	A.H.	A.H.	A.H.	AS	A.H.	A.H.	

ROTOMETER

UPPER CELL	AS-20 (scfm)	13.0	13.0	13.0	14.5	13.0	15.5	15.0	26.0	13.0**
	AS-26 (scfm)	6.5	7.0	7.0	7.0	13.0	15.5	15.5	10.0	
	AS-16 (scfm)	10.0	10.0	10.0	10.5	14.0	15.5	15.5	12.5	8.0
	AS-18 (scfm)	6.5	7.0	6.0	6.5	5.5	5.0	5.5	6.0	6.0
	AS-22 (scfm)	16.0	16.0	16.0	19.0	12.5	15.0	14.5	15.0	10.0
	AS-28 (scfm)	12.0	12.5	12.0	13.0	13.0	15.0	14.5	16.0	10.0
	AS-30 (scfm)	14.0	14.0	8.0	8.5	6.0	44.50	5.0	9.0	6.0
	AS-36 (scfm)	21.0	21.5	22.5	25	13.0	14.0	14.0	15.0	9.5
	AS-42 (scfm)	9.0	9.0	9.0	10	15.5	14.0	14.0	15.5	10.0
	AS-40 (scfm)	16.0	16.0	16.5	18	15.0	15.0	15.0	17.0	11.0
	AS-34 (scfm)	22.0	22.0	23.5	25	18.0	15.0	15.0	15.0	13.0

PRESSURE GAUGE

UPPER CELL	AS-20 (psi)	12.0	12.0	12.0	12.0	12.0	13.0	12.5	5.0	0
	AS-26 (psi)	13.0	13.0	13.0	13.0	13.0	14.5	14.0	14.5	13.0
	AS-16 (psi)	12.5	12.5	12.0	12.0	12.0	13.5	13.0	14.5	13.0
	AS-18 (psi)	17.0	17.0	17.0	18.0	17.0	18.0	17.5	18.0	15.0
	AS-22 (psi)	13.5	13.5	13.5	13.0	12.0	13.5	13.5	14.0	12.5
	AS-28 (psi)	13.5	13.5	13.5	13.5	13.0	14.0	14.0	14.0	13.0
	AS-30 (psi)	18.5	15.5	16.0	16.5	15.0	16.0	16.0	16.5	13.5
	AS-36 (psi)	16.0	16.0	15.5	18.5	14.0	15.5	15.0	16.0	14.0
	AS-42 (psi)	13.0	13.0	13.0	13.0	13.0	14.0	14.0	14.0	13.0
	AS-40 (psi)	13.5	13.5	13.0	13.0	12.5	13.5	13.5	14.0	12.5
	AS-34 (psi)	14.0	14.0	14.0	14.0	13.0	14.0	14.0	5.0	3.0

MONTHLY DOCUMENTATION SHEET
BUILDING 2 LOWER CELL
AIR SPARGE MANIFOLD

DATE	10-18-19	11-27-19	12/09/19	1-21-20	2-25-20	3-20-20	5-21-20	7-14-20	7-22-20	
TIME	1405	1005	1020	0855	0915	1120	1055	1145	1256	
INITIALS	A.H	A.L	AS	W.L	A.II	A.II	AS	A.H	R.H	

ROTOMETER

LOWER CELL	AS-27 (scfm)	12.5	13.0	18.0	19.0	16.0	19.0	19.0	15.0	7.5
	AS-25 (scfm)	15.0	15.0	13.5	17.0	12.0	14.0	14.0	12.5	7.5
	AS-17 (scfm)	12.0	12.5	11.0	14.0	10.5	12.0	12.0	12.5	5.0
	AS-19 (scfm)	13.0	14.0	13.0	16.0	10.5	13.0	13.0	15.0	0
	AS-21 (scfm)	15.0	19.0	17.0	0	11.5	15.0	13.5	13.5	2.0
	AS-29 (scfm)	10.0	11.0	10.0	12.5	12.0	14.0	13.5	13.5	2.0
	AS-43 (scfm)	9.5	10.0	9.0	11.0	8.0	9.0	9.0	8.0	6.0
	AS-46 (scfm)	18.0	20.5	20.5	25.0	12.0	15.0	14.5	14.5	9.0
	AS-41 (scfm)	16.0	11.0	11.5	17.0	11.5	13.5	13.0	11.5	9.5
	AS-33 (scfm)	15.0	16.0	15.0	18.0	12.5	16.5	16.0	13.0	10.0
	AS-35 (scfm)	15.0	16.0	15.0	18.0	12.5	15.0	15.0	12.0	8.0

PRESSURE GAUGE

LOWER CELL	AS-27 (psi)	14.5	13.5	11.5	11.5	13.0	13.5	13.5	14.0	14.0
	AS-25 (psi)	14.0	13.0	13.0	13.5	12.5	12.5	13.0	13.0	13.0
	AS-17 (psi)	14.5	13.5	13.5	14.5	13.0	13.0	13.5	2.0	13.5
	AS-19 (psi)	16.0	15.0	15.0	16.0	14.5	14.5	15.0	13.5	0
	AS-21 (psi)	15.0	14.0	13.5	17.0	12.5	12.5	13.0	13.5	13.5
	AS-29 (psi)	15.0	14.0	13.5	14.5	13.0	13.0	13.5	13.0	13.5
	AS-43 (psi)	13.5	13.0	13.0	13.5	12.5	12.5	12.5	14.0	13.0
	AS-46 (psi)	15.5	14.5	13.5	14.5	13.0	13.0	13.5	13.0	14.0
	AS-41 (psi)	13.5	13.0	12.5	13.0	12.5	12.5	13.0	13.0	13.0
	AS-33 (psi)	15.5	13.5	13.0	14.0	7.0	13.5	13.0	13.5	12.5
	AS-35 (psi)	14.5	13.5	13.0	14.0	13.6	13.0	13.5	14.0	14.0

MONTHLY DOCUMENTATION SHEET
BUILDING 2
PID MEASUREMENTS

DATE	2-25-20	3-20-20	5-21-20	6-29-20	7-22-20						
TIME	0915	1120	1105	1145	1250						
INITIALS	A.U	A.H.	A.S.	A.H.	A.H.						

SVE Effluent	0.0	0.0	0.0	0.0	0.0						
SVE - 10	Moisture	moisture	moisture	0.0	0.0						
SVE - 12	1	1	moisture	0.0	0.0						
SVE - 8				0.0	0.0	0.0					
SVE - 7	1	1	0.0	0.0	0.0						
Exhaust	0.0	0.0	0.0	0.0	0.0						

Appendix D

Second Quarter 2020 Leachate Sampling Data Sheets

May 2020 Groundwater Sampling Checklist

Well ID	Depth to Water	Date of Water Level Reading	Depth of Intake	Sample Date	Total Depth	Notes
RAMW-01	26.37	5-11-20	38.00	5-14-20	46.03	FBLK02
RAMW-02	26.23	5-11-20	37.00	5-14-20	44.79	Collect MS/MSD02
RAMW-03	26.03	5-11-20	38.00	5-13-20	45.26	HSSER-DUP02
RAMW-04	25.88	5-11-20	41.00	5-13-20	44.90	Eblk02
RAMW-05	24.72	5-11-20	36.00	5-13-20	43.73	
RAMW-06	24.75	5-11-20	37.00	5-13-20	44.32	
RAMW-07	29.23	5-11-20	41.00	5-13-20	48.68	
RAMW-08	25.37	5-11-20	37.00	5-12-20	44.33	
GMZ-01	28.83	5-11-20	40.00	5-12-20	47.78	
GMZ-02	26.40	5-11-20	37.00	5-13-20	44.82	Collect MS/MSD01
GMZ-03	25.78	5-11-20	37.00	5-13-20	44.39	HSSER-DUP01
GMZ-04	23.97	5-11-20	38.00	5-12-20	44.90	
MW-07FGA	23.89	5-11-20	39.00	5-12-20	46.24	
MW-203	24.61	5-11-20	40.00	5-12-20	48.97	
PMW-01	26.49	5-11-20	37.00	5-13-20	44.03	
PMW-02	26.48	5-11-20	37.00	5-13-20	44.95	Eblk01
SMW-01	26.82	5-11-20	32.00	5-12-20	39.07	
SMW-02	23.18	5-11-20	32.00	5-12-20	39.65	
SMW-04	26.05	5-11-20	35.00	5-14-20	42.26	
SMW-08	26.27	5/11/20	34.00	5-12-20	41.78	FBLK01
SMW-19	24.89	5-11-20	35.00	5-12-20	41.00	
SMW-20	25.15	5-11-20	33.00	5-13-20	40.08	
SMW-21	24.63	5-11-20	34.00	5-12-20	41.41	
BGW-01	24.75	5-11-20	N/A	N/A	—	Not Sampled
BGW-02	25.14	5-11-20	N/A	N/A	—	Not Sampled
BGW-03	25.21	5-11-20	N/A	N/A	—	Not Sampled

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Project No: 60627752
Site Location: Rockford, Illinois
Weather: 48° sunny

Date: 05-12-20 Time: Start 1020 (24hr)
Finish 1135

Finish

1020
1135

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 47.78 Screen interval(ft): 15 Approx. depth of pump intake(ft): 40
Water table depth (ft): 28.83 Casing type/diameter: 2" PVC Minimum purge volume: 9.26 (gals)
Water column length (ft): 18.95 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	479305X
	Lamotte	2020 <i>we</i>	3169-1713
	Lamotte	Smart 3 Colorimeter	1039-0612
Begin purge at	1030		

(continued on back)

Sample Collector(s):

Date:

(continued on
05/12/20

SAMPLE COLLECTION DATA

Well ID:

GMZ-01

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 05-13-20 Time: Start 1050 (24hr)
Project No: 60627752 Finish to 12/15
Site Location: Rockford, Illinois
Weather: Collector(s): A. Sukolowsky

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.82 Screen interval(ft): 15 Approx. depth of pump intake(ft): 37
Water table depth (ft): 26.40 Casing type/diameter: 2" PVC Minimum purge volume: 9.0 (gals)
Water column length (ft): 18.42
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	U79305X
	Lamotte	2020 ^{b6}	3169-1713
	Lamotte	Smart Colorimeter	1039-0612
Begin purge at	<u>1055</u>		

(continued on back)

Sample Collector(s):

Andy Sorkin

Date:

05/13/20

SAMPLE COLLECTION DATA

Well ID:

GMZ-02

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Project No: 60627752
Site Location: Rockford, Illinois
Weather: 50° Sunny

Date: 05-13-20 Time: Start 0950 (24hr)
Finish 1050

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.39 Screen interval(ft): 15 Approx. depth of pump intake(ft): 37
 Water table depth (ft): 25.78 Casing type/diameter: 2" PVC Minimum purge volume: 9.10 (gals)
 Water column length (ft): 18.61 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	479305X
	Lamotte	2020 ME	3169-1713
	Lamotte	Smart Colorimeter	1039-0612
Begin purge at	<u>1000</u>		

Sample Collector(s):

(continued on back)

Date: 05/13/20

SAMPLE COLLECTION DATA

Well ID:

GMZ-03

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 05-12-20 Time: Start 1300 (24hr)
Project No: 60627752 Finish 1410
Site Location: Rockford, Illinois
Weather: 51° Sunny Collector(s): A. Sukolowsky

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.90 Screen interval(ft): 15 Approx. depth of pump intake(ft): 38
Water table depth (ft): 23.97 Casing type/diameter: 2" PVC Minimum purge volume: 10,23 (gals)
Water column length (ft): 20.93 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	47930SX
	Lamotte	2020	3169-1713
	Lamotte	Smart 2 Colorimeter	1039-0612
Begin purge at	1315		

Sample Collector(s):

(continued on back)

Date:

05/12/20

SAMPLE COLLECTION DATA

Well ID:

GMZ-04

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Project No: 60627752
Site Location: Rockford, Illinois
Weather: Sunny 45-55° F

Date: 5-12-20 Time: Start 0915 1120 (24hr)
5-12-20 Finish 1210

Collector(s): A. Gellatly

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 46.24 Screen interval(ft): 15 Approx. depth of pump intake(ft): 39
Water table depth (ft): 23.89 Casing type/diameter: 4" SS Minimum purge volume: 43.8 (gals)
Water column length (ft): 22.35 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
1125 A/H	YSI	556 MPS	18K 102395
6920	Lamotte	2020	1220-3211
	Lamotte	Smart 2 Colorimeter	1033-0612

(continued on back)

Sample Collector(s):

alla Hult

Date: 5-12-20

SAMPLE COLLECTION DATA

Well ID:

MW-07FGA

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-12-20 Time: Start 103.5 (24hr)
Project No: 60627752 Finish 1120
Site Location: Rockford, Illinois
Weather: Sunny 40-50° F Collector(s): A. Heilatz

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 48.97 Screen interval(ft): 15 Approx. depth of pump intake(ft): 40
Water table depth (ft): 24.60 Casing type/diameter: 2" SS Minimum purge volume: 12.0 (gals)
Water column length (ft): 24.36 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	181C 102395
	Lamotte	2020	1220-3211
	Lamotte	Smart 2 Colorimeter	1033-06012
Begin purge at	1040		

(continued on back)

Sample Collector(s):

Date: 5-12-26

SAMPLE COLLECTION DATA

Well ID:

MW-203

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 05-13-20 Time: Start 1215 (24hr)
Project No: 60627752 Finish 1335
Site Location: Rockford, Illinois
Weather: 60° Sunny Collector(s): A. Sokołowsky

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.03 Screen interval(ft): 25 Approx. depth of pump intake(ft): 37
 Water table depth (ft): 26.49 Casing type/diameter: 2" PVC Minimum purge volume: 8.57 (gals)
 Water column length (ft): 17.54 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	479305X
	Lamotte	2020 <i>inc</i>	3161-1713
	Lamotte	Smart3 Colorimeter	1039-0612
Begin purge at	<u>1225</u>		

Sample Collector(s):

Audy Sutkowsky

Date:

(continued on
05/13/20)

(continued on back)

SAMPLE COLLECTION DATA

Well ID:

PMW-01

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 05-13-20 Time: Start 1335 (24hr)
Project No: 60627752 Finish 1455
Site Location: Rockford, Illinois
Weather: 60° sunny Collector(s): A. Sukolowsky

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.95 Screen interval(ft): 25 Approx. depth of pump intake(ft): 37
Water table depth (ft): 26.48 Casing type/diameter: 2" PVC Minimum purge volume: 9,03 (gals)
Water column length (ft): 18.47 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

(continued on back)

Sample Collector(s):

Date: 05/13/20

05/13/20

SAMPLE COLLECTION DATA

Well ID:

PMW-02

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-14-20 Time: Start 100 (24hr)
Project No: 60627752 Finish 1110
Site Location: Rockford, Illinois
Weather: Overcast 50-60°F Collector(s): A. Hollister

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 46.03 Screen interval(ft): 15 Approx. depth of pump intake(ft): 37.38
 Water table depth (ft): 26.37 Casing type/diameter: 2" PVC Minimum purge volume: 9.7 (gals)
 Water column length (ft): 19.66 (calculations on reverse)

2. WFI I PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	18K102395
	Lamotte	2020	1220-3211
	Lamotte	Smart 2 Colorimeter	1033-0612
Begin purge at	1005		

(continued on back)

Sample Collector(s):

Albert Gold

Date: 5-14-20

SAMPLE COLLECTION DATA

Well ID:

RAMW-04 2

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-14-20 Time: Start 0855 (24hr)
Project No: 60627752 Finish 1000
Site Location: Rockford, Illinois
Weather: Cloudy 45-55°F Collector(s): A. Hallat

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.79 Screen interval(ft): 15 Approx. depth of pump intake(ft): 37
Water table depth (ft): 26.23 Casing type/diameter: 2" PVC Minimum purge volume: 9.1 (gals)
Water column length (ft): 18.56 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	18K102395
	Lamotte	2020	1220-3211
	Lamotte	Smart 2 Colorimeter	1033-0612
Begin purge at	<u>0900</u>		

(continued on back)

Sample Collector(s): John Rector **Date:** 5-14-20

SAMPLE COLLECTION DATA

Well ID:

RAMW-02

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-13-20 Time: Start 1335 (24hr)
Project No: 60627752 Finish 1435
Site Location: Rockford, Illinois
Weather: Sunny 65-65°F Collector(s): R. Hellstrom

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 45.26 Screen interval(ft): 15 Approx. depth of pump intake(ft): 38
Water table depth (ft): 36.03 Casing type/diameter: 2" PVC Minimum purge volume: 9.40 (gals)
Water column length (ft): 19.23 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	181C102325
	Lamotte	2020	1270-3211
	Lamotte	Smart 2 Colorimeter	1033-0617
Begin purge at	1340		

(continued on back)

Sample Collector(s): John P. C. Date: 5-13-20

SAMPLE COLLECTION DATA

Well ID:

RAMW-03

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-13-20 Time: Start 1235 (24hr)
Project No: 60627752 Finish 1325
Site Location: Rockford, Illinois
Weather: Sunny 55-65°F Collector(s): A. Helletsz

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.90 Screen interval(ft): 15 Approx. depth of pump intake(ft): 28.37
Water table depth (ft): 25.88 Casing type/diameter: 2" PVC Minimum purge volume: 9.3 (gals)
Water column length (ft): 19.02 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	18K102395
	Lamotte	2020	1220-3211
	Lamotte	Smart 2 Colorimeter	1033-0612
Begin purge at	1240		

(continued on back)

Sample Collector(s): John P. Hall Date: 5-13-20

SAMPLE COLLECTION DATA

Well ID:

RAMW-014

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-13-20 Time: Start 1135 (24hr)
Project No: 60627752 Finish 1230
Site Location: Rockford, Illinois
Weather: Sunny 50-60°F Collector(s): A. Hollatz

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 43.73 Screen interval(ft): 15 Approx. depth of pump intake(ft): 36
Water table depth (ft): 24.72 Casing type/diameter: 2" PVC Minimum purge volume: 9.3 (gals)
Water column length (ft): 19.01
(calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	181C 102395
	Lamotte	2020	1220 - 3211
	Lamotte	Smart 2 Colorimeter	1033 - 0612
Begin purge at	1140		

(continued on back)

Sample Collector(s):

ella m. schultz

Date: 5-13-20

SAMPLE COLLECTION DATA

Well ID:

RAMW-05

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-13-20 Time: Start 1025 (24hr)
Project No: 60627752 Finish 1130
Site Location: Rockford, Illinois
Weather: Sunny 50-60°F Collector(s): A.1f.1.a.2

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.32 Screen interval(ft): 15 Approx. depth of pump intake(ft): 37
Water table depth (ft): 24.75 Casing type/diameter: 2" PVC Minimum purge volume: 9.6 (gals)
Water column length (ft): 19.57 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	184102345
	Lamotte	2020	1220-3211
	Lamotte	Smart 2 Colorimeter	1033-06012
Begin purge at	1030		

(continued on back)

Sample Collector(s):

also added

Date: 5-13-20

SAMPLE COLLECTION DATA

Well ID:

RAMW-06

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Project No: 60627752
Site Location: Rockford, Illinois
Weather: Sunny 45-55° F

Date: 5-13-20

Time: Start
Finish

0900
1020

(24hr)

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 48.68 Screen interval(ft): 15 Approx. depth of pump intake(ft): 41
Water table depth (ft): 29.23 Casing type/diameter: 2" PVC Minimum purge volume: 9.6 (gals)
Water column length (ft): 19.45 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	18K102395
	Lamotte	2020	1220-3211
	Lamotte	Smart 2 Colorimeter	1033-0612
Begin purge at	0905		

(continued on back)

Sample Collector(s):

other uses

Date: 5-13-20

SAMPLE COLLECTION DATA

Well ID:

RAMW-07

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-12-20 Time: Start 1310 (24hr)
Project No: 60627752 Finish 1415
Site Location: Rockford, Illinois
Weather: Sunny 55-105°F Collector(s): A. Hellert

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 44.33 Screen interval(ft): 15 Approx. depth of pump intake(ft): 37
Water table depth (ft): 25.37 Casing type/diameter: 2" PVC Minimum purge volume: 9.3 (gals)
Water column length (ft): 18.96 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	18k10 2395
	Lamotte	2020	1220 - 3211
	Lamotte	Smart 2 Colorimeter	1033-0612
Begin purge at	1315		

(continued on back)

Sample Collector(s):

all around

Date:

5-12-20

SAMPLE COLLECTION DATA

Well ID:

RAMW-08

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 05-12-20 Time: Start 1135 (24hr)
Project No: 60627752 Finish 1245
Site Location: Rockford, Illinois
Weather: 51° sunny Collector(s): A. Sukolowsky

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 39.07 Screen interval(ft): 15 Approx. depth of pump intake(ft): 32
 Water table depth (ft): 26.82 Casing type/diameter: 2" PVC Minimum purge volume: 5.99 (gals)
 Water column length (ft): 12.25 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	479305X
	Lamotte	2020 WE	3169 - 1713
	Lamotte	Smart 3 Colorimeter	1039 - 0612
Begin purge at	1150		

(continued on back)

Sample Collector(s):

Date:

05/12/20

SAMPLE COLLECTION DATA

Well ID:

SMW-01

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-12-20 Time: Start 0915 (24hr)
Project No: 60627752 Finish 1035
Site Location: Rockford, Illinois
Weather: Sunny 40-50°F Collector(s): A. Hillatz

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 39.105 Screen interval(ft): 15 Approx. depth of pump intake(ft): 32
Water table depth (ft): 23.18 Casing type/diameter: 2" PVC Minimum purge volume: 8.1 (gals)
Water column length (ft): 16.47 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	181K102395
	Lamotte	2020	1220-3211
	Lamotte	Smart 2 Colorimeter	1033-0612
Begin purge at	0920		

(continued on back)

Sample Collector(s):

also auf

Date: 5-12-20

SAMPLE COLLECTION DATA

Well ID:

SMW-02

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 05-14-20 Time: Start 0850 (24hr)
Project No: 60627752 Finish 1015
Site Location: Rockford, Illinois
Weather: 55° overcast rain Collector(s): A. Sokołowsky

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 42.26 Screen interval(ft): 15 Approx. depth of pump intake(ft): 35
Water table depth (ft): 26.05 Casing type/diameter: 2" PVC Minimum purge volume: 7.92 (gals)
Water column length (ft): 16.21 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	U79305X
	Lamotte	2020 re	3169-1713
	Lamotte	Smart Colorimeter	1039-0612
Begin purge at	0900		

Sample Collector(s):

Andy Szkolovsky

Date: 05/14/20

05/14/20

SAMPLE COLLECTION DATA

Well ID:

SMW-04

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

05/05/20

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Project No: 60627752
Site Location: Rockford, Illinois
Weather: 48° SUNNY

Date: 05-12-20 Time: Start 0900 (24hr)
Finish 1020

Collector(s): A. Sukolowsky

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 41.78 Screen interval(ft): 15 Approx. depth of pump intake(ft): 34
Water table depth (ft): 26.27 Casing type/diameter: 2" PVC Minimum purge volume: 7.58 (gals)
Water column length (ft): 15.51 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	479305X
	Lamotte	2020 WE	3169-1713
	Lamotte	Smart 3 Colorimeter	1039-0612
Begin purge at	0925		

(continued on back)

Sample Collector(s):

Date: 05/12/20

05/12/20

SAMPLE COLLECTION DATA

Well ID:

SMW-08

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-12-20 Time: Start 1220 (24hr)
Project No: 60627752 Finish 1365
Site Location: Rockford, Illinois
Weather: Sunny 60-60°F Collector(s): A. Hollister

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 41.00 Screen interval(ft): 15 Approx. depth of pump intake(ft): 35
 Water table depth (ft): 24.89 Casing type/diameter: 2" SS Minimum purge volume: 7,9 (gals)
 Water column length (ft): 10.11 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	18K102395
	Lamotte	2020	1220-3211
	Lamotte	Smart 2 Colorimeter	1032-0612
Begin purge at	1d25		

(continued on back)

Sample Collector(s):

Allen M. Webb

Date: 5-12-20

SAMPLE COLLECTION DATA

Well ID:

SMW-19

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 05-13-20 Time: Start 0850 (24hr)
Project No: 60627752 Finish 0950
Site Location: Rockford, Illinois
Weather: SD°+ Sunny Collector(s): A. Sukolovsky

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 40.08 Screen interval(ft): 15 Approx. depth of pump intake(ft): 33
Water table depth (ft): 25.15 Casing type/diameter: 2" PVC Minimum purge volume: 7.30 (gals)
Water column length (ft): 14.93 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	47930SX
	Lamotte	2020 HC	3169-1713
	Lamotte	Smart 3 Colorimeter	1039-0612
Begin purge at	0900		

(continued on back)

Sample Collector(s):

Date:

05/13/20

SAMPLE COLLECTION DATA

Well ID:

SMW-20

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility

Date: 05-12-20

Time:

Time: Start 1405 (24hr)

Project No: 60627752

Site Location: Rockford, Illinois

Weather: Sunny

Collector(s):

A. Sokołowsky

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 41.41 Screen interval(ft): 15 Approx. depth of pump intake(ft): 34
Water table depth (ft): 24.63 Casing type/diameter: 2" PVC Minimum purge volume: 8.20 (gals)
Water column length (ft): 16.78 (calculations on reverse)

2. WELL PURGE DATA

Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	U79305X
	Lamotte	2020	3169-1713
	Lamotte	Smart 2 Colorimeter	1039-0612
Begin purge at	1420		

(continued on back)

Sample Collector(s):

Date:

05/12/20

SAMPLE COLLECTION DATA

Well ID:

SMW-21

Page 2 of 2

VOCs - Volatile organic compounds

G - Glass

HCl - Hydrchloric acid

Project Name: Raythen Colliws Plant 1

Project Number: 60627752

Date: 5-12-20

Calibration Form

Parameter	Instrument		Standard		Standard Value @ C	Ambient Temp. C	Initial Value	Adjusted Value	Initials & Time	Comments
	Manf/Model	Serial No.	Manf/Model	SN/Exp. Date						
pH 4.00	YSI Pro DSS	181C102395	Field	7906290 6-1-21	4.00 @ 25C	17.3	4.11	4.00	0852 A/H	
pH 7.00			Field	7903469 4-1-21						
pH 10.00			Field	7905701 5-1-21	10.00 @ 25C	17.3	10.03	10.09	0853 A/H	
Specific Cond.			Field	7906263 6-1-21						
ORP			YSI	18E100323 5-12-23	— mV @ — C	17.6	271.2	240.6	0855 A/H	
DO			H2O Saturated Air	X						
Turbidity	LaMotte 2020	1220-3211	X	X	0 NTU	NA	0.01	0.00	A/H 0840	
			X	X						
			X	X	10 NTU	NA	10.01	10.01	A/H 0840	
			X	X						

BP = Barometric Pressure (mmHg)

Project Name: Raytheon / Collins Plant 1

Project Number: 60627752

Date: 5-12-20

Calibration Form

Parameter	Instrument		Standard		Standard Value @ C	Ambient Temp. C	Initial Value	Adjusted Value	Initials & Time	Comments
	Manf/Model	Serial No.	Manf/Model	SN/Exp. Date						
pH 4.00	VSE Pro DS1	17C-102375	Field	7903469 4-1-21	4.00 @ 25C	17.3	4.05	4.00	085014A.	
pH 7.00				7906290 6-1-21		17.3	7.02	7.03	08471411	
pH 10.00			Field	7905701 5-1-21	10.00 @ 25C	17.3	9.92	10.09	085314L	
Specific Cond.				7906263 6-1-21		17.3	1584	1661	084414L	
ORP			VSE	18E100323 5-12-23	- mV @ - C	17.3	271.2	234.4	085614L	
DO			H2O Saturated Air	X	100% H2O Sat. Air	17.4	99.0	101.3	084614L	
Turbidity	LaMotte 2020	3169- 1713	X	X	0 NTU	NA	0.00	0.00	AH0840	
			X	X		NA				
			X	X	10 NTU	NA	9.98	10.01	AH0840	
			X	X		NA				

BP = Barometric Pressure (mmHg)

Project Name: Raytheon / Collins Plant 1

Project Number: 60627752

Date: 5-13-20

Calibration Form

Parameter	Instrument		Standard		Standard Value @ C	Ambient Temp. C	Initial Value	Adjusted Value	Initials & Time	Comments
	Manf/Model	Serial No.	Manf/Model	SN/Exp. Date						
pH 4.00	YS+DSS Pro	17C102375	Field	7903464	4.00 @ 25C	18.0	4.12	4.00	0834AH	
				4-12-21						
pH 7.00				7906290	7.00 @ 25C	18.0	7.06	7.03	082744	
				6-1-21						
pH 10.00				7905901	10.00 @ 25C	17.7	9.91	10.09	0841AH	
				5-1-21						
Specific Cond.			YS+	7906263	1409 1,000 uS/cm @ 25C	18.0	1619	1645	0821AH	
				6-1-21						
ORP			YS+	18P100327	- mV @ - C	17.5	234.1	234.0	0814AH	
				5-12-23						
DO			H2O Saturated Air	X	100% H2O Sat. Air	17.9	107.5	101.4	0816AH	
Turbidity	LaMotte 2020	3/69- 1713	X	X	0 NTU	NA	0.02	0.00	AH 0815	
			X	X		NA				
			X	X	10 NTU	NA	10.02	10.01	AH 0815	
			X	X		NA				

BP = Barometric Pressure (mmHg)

Project Name: Raytheon / Collins Plant

Project Number: 60627752

Date: 5-13-20

Calibration Form

Parameter	Instrument		Standard		Standard Value @ C	Ambient Temp. C	Initial Value	Adjusted Value	Initials & Time	Comments
	Manf/Model	Serial No.	Manf/Model	SN/Exp. Date						
pH 4.00	YSI DSS Pro	18K102285	Field	7903469	4.00 @ 25C	18.0	4.04	4.00	083414H	
				4-1-21						
pH 7.00				7906290	7.00 @ 25C	18.1	7.07	7.03	082714H	
				6-1-21						
pH 10.00				7905701	10.00 @ 25C	17.7	10.05	10.09	0841A1L	
				5-1-21						
Specific Cond.			↓	7906263	14000 uS/cm @ 25C	18.2	1590	1584	082114H	
				6-1-21						
ORP			YSF	18F100383	- mV @ - C	17.8	238.3	240.3	0845A1L	
				5-12-23						
DO			H2O Saturated Air		100% H2O Sat. Air		18.5	105.3	102.1	0816A1L
Turbidity	LaMotte 202	1220-3211			0 NTU	NA	0.00	0.00	081514H	
						NA				
					10 NTU	NA	9.96	10.01	0815A1H	
						NA				

BP = Barometric Pressure (mmHg)

Project Name: Raythen/collins plan + 1

Project Number: 606 27752

Date: 5-14-20

Calibration Form

Parameter	Instrument		Standard		Standard Value @ C	Ambient Temp. C	Initial Value	Adjusted Value	Initials & Time	Comments
	Manf/Model	Serial No.	Manf/Model	SN/Exp. Date						
pH 4.00	YSI DSS Pro	18K102395	Field	7903464 4-1-21	4.00 @ 25C	19.7	4.03	4.00	0832A14	
pH 7.00				7906290 6-1-21		19.7	7.07	7.02	0825A14	
pH 10.00				7905901 5-1-21	10.00 @ 25C	19.7	10.02	10.06	0835A14	
Specific Cond.			↓	7906263 6-1-21		19.9	1603	1596	0816A17	
ORP			YSI	18F100323 5-12-23	- mV @ - C	19.3	229.5	231.4	0840A14	
DO			H2O Saturated Air	X		21.3	101.2	101.0	0811A14	
Turbidity	LaM-He 2020	1220- 3211		X	0 NTU	NA	0.03	0.01	0810A14	
			X	X		NA				
			X	X	10 NTU	NA	00.00	10.00	0810A14	
			X	X		NA				

BP = Barometric Pressure (mmHg)

Project Name: Raytheon / Collins Plant 1

Project Number: 60627752

Date: 5-11-20

Calibration Form

Parameter	Instrument		Standard		Standard Value @ C	Ambient Temp. C	Initial Value	Adjusted Value	Initials & Time	Comments
	Manf/Model	Serial No.	Manf/Model	SN/Exp. Date						
pH 4.00	YSI Pro TM 17402375	17402375	Field	7903464 4-1-21	4.00 @ 25C	19.7	4.04	4.01	0832AH	
pH 7.00				7906790 6-1-21		20.1	8.61	7.00	0825TAH	
pH 10.00				7905701 5-1-21	10.00 @ 25C	19.8	10.83	10.09	0835TAH	
Specific Cond.				7906263 6-1-21		19.7	1654	1658	0816TAH	
ORP			YSI	18F100323 5-12-23	- mV @ - C	19.4	237.2	238.3	0836AH	
DO			H2O Saturated Air	X		19.9	100.2	100.3	0811AH	
Turbidity	LaMotte 2020 3169-1713	3169-1713	X	X	0 NTU	NA	0.01	0.01	0810AH	
			X	X		NA				
			X	X	10 NTU	NA	9.45	9.99	0810AH	
			X	X		NA				

BP = Barometric Pressure (mmHg)



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Page 1 of 2

Client / Reporting Information		Project Information												
Company Name: AECOM		Project Name: UTAS SER Plants 1/2 Facility												
Street Address 41320 Wintfield Rd		Street		Billing Information (if different from Report to)										
City Warrenville IL	State 60555	City Rockford	State IL											
Project Contact Peter.Hellatz@aecom.com		E-mail 60627752		Project #										
Phone #				Client Purchase Order #										
Sampler(s) Name(s) A. Hellatz/A. Sukolawsky		Phone #		Project Manager Peter.Hellatz										
				Attention:										
SGS Sample #	Field ID / Point of Collection	Collection				# of bottles	Number of preserved Bottles					VGC'S	LAB USE ONLY	
		Date	Time	Sampled by	Grab (G) Comp (C)		Matrix	HCl	NaOH	HNO ₃	H ₂ SO ₄			NONE
HSER-R-RAMW08-051220		5-12-20	1400	AH G	GW	3	X							X
HSER-R-RAMW07-051320		5-13-20	1010	AH G	GW	3	X							X
HSER-R-RAMW06-051320		5-13-20	1115	AH G	GW	3	X							X
HSER-R-RAMW05-051320		5-13-20	1220	AH G	GW	3	X							X
HSER-R-RAMW04-051320		5-13-20	1315	AH G	GW	3	X							X
HSER-R-RAWK02-051320		5-13-20	1325	AH G	GW	3	X							X
HSER-R-RAWK03-051320		5-13-20	1420	AH G	GW	3	X							X
HSER-R-DUP02-051320		5-13-20	0000	AH G	GW	3	X							Y
HSER-R-RAWK02-051420		5-14-20	0945	AH G	GW	3	X							X
HSER-R-MS02-051420		5-14-20	0945	AH G	GW	3	X							X
HSER-R-MS02-051420		5-14-20	0945	AH G	GW	3	X							X
HSER-R-FBLK02-051420		5-14-20	1010	AH G	GW	3	X							X
Turn Around Time (Business Days)		Deliverable										Comments / Special Instructions		
<input checked="" type="checkbox"/> 10 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 3 Business Days <input type="checkbox"/> 2 Business Days <input type="checkbox"/> 1 Business Day <input type="checkbox"/> Other _____		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> NJ Reduced (Level 3) <input type="checkbox"/> MA MCP Criteria <input type="checkbox"/> Full Tier 1 (Level 4) <input type="checkbox"/> CT RCP Criteria <input type="checkbox"/> Commercial "C" <input type="checkbox"/> State Forms <input type="checkbox"/> NJ DKQP <input type="checkbox"/> EDD Format _____										* List 13 VGC's http://www.sgs.com/en/terms-and-conditions		
Approved By (SGS PM): Date:		Commercial "A" = Results only; Commercial "B" = Results + QC Summary Commercial "C" = Results + QC Summary + Partial Raw data												
All data available via Lablink		Approval needed for 1-3 Business Day TAT												
Sample Custody must be documented below each time samples change possession, including courier delivery.														
Relinquished by: 1	Date / Time: 5-14-20 1300	Received By: FedEx 1A1560305342	Relinquished By: 2	Date / Time: 2	Received By:									
Relinquished by: 3	Date / Time:	Received By: 3	Relinquished By: 4	Date / Time:	Received By: 4									
Relinquished by: 5	Date / Time:	Received By: 5	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Not intact	Preserved where applicable <input type="checkbox"/> Absent	On Ice	Cooler Temp. °C							



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Page 2 of 2

Client / Reporting Information		Project Information												FED-EX Tracking #		Bottle Order Control #			
Company Name: AECOM		Project Name: UTAS SED Plants 1/2 Facility												SGS Quote #		SGS Job #			
Street Address: 4320 Winfield Rd		Street:		Billing Information (if different from Report to)															
City Warrenville IL	State IL	Zip 60555	City Batavia	State IL	Company Name														
Project Contact Peter.Hall@AECOM.com	E-mail 606027752	Project #	Street Address																
Phone #			Client Purchase Order #		City		State		Zip										
Sampler(s) Name(s) A Hall/H.Sukolocasky	Phone #	Project Manager Peter Hall/12		Attention:															
SGS Sample #		Collection														Number of preserved Bottles		Matrix Codes	
		Field ID / Point of Collection	MEOH/DI Vial #	Date	Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	HCl	NaOH	HNO ₃	H ₂ SO ₄	NONE	DI Water				
HSSER-RHM401-051420		5/14/20	1100	AHG	66U	3	X									X			
HSSER-TBL102-051220		5/12/20	-	...	6	66U	2	X								X			
Turn Around Time (Business Days)																Deliverable		Comments / Special Instructions	
<input checked="" type="checkbox"/> 10 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 3 Business Days <input type="checkbox"/> 2 Business Days <input type="checkbox"/> 1 Business Day <input type="checkbox"/> Other								<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NJ Reduced (Level 3) <input type="checkbox"/> Full Tier I (Level 4) <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NJ DKQP											
Approved By (SGS PM): / Date: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> All data available via LabLink								Commercial "A" = Results only; Commercial "B" = Results + QC Summary Commercial "C" = Results + QC Summary + Partial Raw data								Star List 13 VOC's		http://www.sgs.com/en/terms-and-conditions	
Sample Custody must be documented below each time samples change possession, including courier delivery.																			
Relinquished by: 1 AH Hall	Date / Time: 5/14/20 1300	Received By: 1 Peter Hall 1215 10030 5342	Relinquished By: 2	Date / Time: 2	Received By: 2														
Relinquished by: 3	Date / Time:	Received By: 3	Relinquished By: 4	Date / Time:	Received By: 4														
Relinquished by: 5	Date / Time:	Received By: 5	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Not intact	Preserved where applicable <input type="checkbox"/> Absent							On Ice <input type="checkbox"/>	Cooler Temp. °C <input type="checkbox"/>						



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Client / Reporting Information		Project Information												Requested Analysis						
Company Name: AECOM		Project Name: UTASER Plants 1/2 Facility																		
Street Address: 4320 Winfield Rd		Street:		Billing Information (if different from Report to)																
City: Whitenville	State: IL	Zip: 60555	City: Rockford	State: IL	Company Name															
Project Contact: Peter.Hellatze@aecom.com	E-mail: 160627752	Project #		Street Address																
Phone #	Client Purchase Order #		City _____ State _____ Zip _____																	
Sampler(s) Name(s): A. Hellatze / A. Suleckowski	Phone #	Project Manager: Peter Hellatze		Attention: _____																
SGS Sample #		Field ID / Point of Collection		Collection			Matrix	# of bottles	Number of preserved Bottles								LAB USE ONLY			
				Date	Time	Sampled by			Grab (G) Comp (C)	ICL	NAGH	HNO ₃	H ₂ SO ₄	NONE	D/Water	MEOH				
HSER-SMW08-051220		5-12-20 1005 AS G GW 3 X																		
HSER-FBL002-051220		1010 AS G GW 3 X																		
HSER-SMW02-051220		1025 AH G GW 3 X																		
HSER-MW203-051220		1105 AH G GW 3 X																		
HSER-GM201-051220		1125 AS G GW 3 X																		
HSER-MW07FGA-051220		1150 AH G GW 3 X																		
HSER-SMW01-051220		1230 AS G GW 3 X																		
HSER-SMW19-051220		1245 AH G GW 3 X																		
HSER-GM201-051220		1400 AS G GW 3 X																		
HSER-SMW21-051220		1500 AS G GW 3 X																		
HSER-SMW20-051320		5-13-20 0940 AS G GW 3 X																		
HSER-GM203-051320		5-13-20 1035 AS G GW 3 X																		
Turn Around Time (Business Days)				Deliverable												Comments / Special Instructions				
<input checked="" type="checkbox"/> 10 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 3 Business Days <input type="checkbox"/> 2 Business Days <input type="checkbox"/> 1 Business Day <input type="checkbox"/> Other All data available via Lablink				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> NJ Reduced (Level 3) <input type="checkbox"/> MA MCP Criteria <input type="checkbox"/> Full Tier I (Level 4) <input type="checkbox"/> CT RCP Criteria <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NJ DKQP <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format												# List 13 VOC's				
Approved By (SGS PM): Date: _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____				Commercial "A" = Results only; Commercial "B" = Results + QC Summary Commercial "C" = Results + QC Summary + Partial Raw data												http://www.sgs.com/en/terms-and-conditions				
Sample Custody must be documented below each time samples change possession, including courier delivery.																				
Relinquished by: 1 Peter Hellatze		Date / Time: 5-14-20 1300		Received By: 1 Feder 1215 6030 5331		Relinquished By: 2		Date / Time: 2		Received By:										
Relinquished by: 3		Date / Time:		Received By: 3		Relinquished By: 4		Date / Time:		Received By: 4										
Relinquished by: 5		Date / Time:		Received By: 5		Custody Seal #		<input type="checkbox"/> Intact	Preserved where applicable			On Ice <input type="checkbox"/>	Cooler Temp. °C <input type="checkbox"/>							
								<input type="checkbox"/> Not intact	<input type="checkbox"/> Absent	<input type="checkbox"/>	Therm. ID: _____									



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Client / Reporting Information		Project Information										FED-EX Tracking #		Bottle Order Control #							
Company Name: AECOM		Project Name: UTAS SER Plants 1/2 Facility										SGS Quote #		SGS Job #							
Street Address 4320 Wintfield Rd		Street		Billing Information (if different from Report to)																	
City Warrenville IL 60555	State IL	Zip	City Rockford IL	State	Company Name																
Project Contact Peter.Hollatz@aecom.com		E-mail 00627752		Project #	Street Address																
Phone #		Client Purchase Order #		City _____ State _____ Zip _____																	
Sampler(s) Name(s) P. Hollatz/A. Sukolasky		Phone #		Project Manager Peter Hollatz		Attention:															
SGS Sample # HSER-GM202-051320 HSER-MS01-051320 HSER-MSD01-051320 HSER-PMW01-051320 HSER-PMW02-051320 HSER-EBLK01-051320 HSER-DU01-051320 HSER-SMV04-051420 HSER-TBLK01-051220		Collection				Matrix GW	# of bottles 3	Number of preserved Bottles													
		MEOH/DI Vial #	Date	Time	Sampled by			Grab (G) Comp (C)	HCl	NaOH	HNO3	H2SO4	None	DI Water	MEOH	EDTA					
			5-13-20	1155	AS			G	X												
				1155	AS			G	X												
				1155	AS			G	X												
				1325	AS			G	X												
				1435	AS			G	X												
				1450	AS			G	X												
				0000	AS			G	X												
Turn Around Time (Business Days)														Deliverable		Comments / Special Instructions					
<input checked="" type="checkbox"/> 10 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 3 Business Days <input type="checkbox"/> 2 Business Days <input type="checkbox"/> 1 Business Day <input type="checkbox"/> Other _____ All data available via Lablink							Approved By (SGS PM): Date: _____ * Approval needed for 1-3 Business Day TAT							<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NJ Reduced (Level 3) <input type="checkbox"/> Full Tier I (Level 4) <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NJ DKQP		<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> MA MCP Criteria <input type="checkbox"/> CT RCP Criteria <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format		<input type="checkbox"/> DOD-QSM5		# List 13 VOC's	
Sample Custody must be documented below each time samples change possession, including courier delivery.														Commercial "A" = Results only; Commercial "B" = Results + QC Summary Commercial "C" = Results + QC Summary + Partial Raw data		http://www.sgs.com/en/terms-and-conditions					
Relinquished by: 1		Date / Time: 5-14-20 1300		Received By: 1 Feder 1215600305331		Relinquished By: 2		Date / Time: 2		Received By: 2											
Relinquished by: 3		Date / Time:		Received By: 3		Relinquished By: 4		Date / Time:		Received By: 4											
Relinquished by: 5		Date / Time:		Received By: 5		Custody Seal #		<input type="checkbox"/> Intact <input type="checkbox"/> Not intact	Preserved where applicable Absent <input type="checkbox"/>		On Ice <input type="checkbox"/>	Cooler Temp. °C <input type="checkbox"/>									

Appendix E

Second Quarter 2020 Progress Report

QUARTERLY PROGRESS REPORT – Third Quarter 2020 (June 2020 – August 2020)

Hamilton Sundstrand Corporation Plant 1/2 Facility
Southeast Rockford Groundwater Contamination
Superfund Site
2421 11th Street
Rockford, Illinois 61104
ILD981000417, ILD010219665

This Quarterly Progress Report has been prepared on behalf of Hamilton Sundstrand Corporation (HSC) by AECOM Technical Services, Inc. (AECOM). This report summarizes activities that occurred during the months of June, July and August of the third quarter of 2020 at the above-referenced facility.

Progress Report- Reporting Quarters			
Q1	December	January	February
Q2	March	April	May
Q3	June	July	August
Q4	September	October	November

This report is the thirty-first in the series of Quarterly Progress Reports and consistent with United States Environmental Protection Agency (USEPA) approval of combining project reporting documents from a letter dated April 15, 2011. Quarterly Progress Reports are included as attachments to the Groundwater Management Zone (GMZ) Monitoring and System Performances Reports.

This Quarterly Progress Report follows the requirements outlined in Section X of the Consent Decree (CD) and includes the following:

Actions taken during the prior quarter to maintain compliance with the CD include:

- Summaries of sampling results and tests.
- An identification of work plans and other deliverables completed in accordance with the CD.
- Actions scheduled for the next quarter.
- Information on the progress, percentage of completion, delays, and efforts to mitigate delays.
- Modifications to Work Plans and/or schedules.
- Activities undertaken in support of the Community Relations Plan.

Tasks completed during this period to fulfill each of these actions are summarized (by action) below.

Actions Taken During the Third Quarter to Achieve Compliance with the Consent Decree

The following actions were taken during June, July and August of the third quarter of 2020:

- On June 11, 2020, AECOM submitted to the USEPA the First Quarter 2020 GMZ Monitoring and System Performance Report.
- Phase 1 and Phase 2 air sparge/soil vapor extraction (AS/SVE) system air sampling of the SVE system effluent prior to being de-activated (switched to the pulse-off mode). SVE process air effluent sampling was conducted on July 22, 2020.

- AECOM completed GMZ and performance well quarterly monitoring (third quarter 2020) well network sampling on August 3-6, 2020. The following wells were sampled for volatile organic compounds (VOCs): GMZ wells (which include the Phase 1 AS/SVE performance monitoring network) SMW01, SMW02, SMW04, SMW08, SMW19, SMW20, SMW21, MW07FG, MW203, GMZ01, GMZ02, GMZ03, GMZ04, PMW01 and PMW02; and performance monitoring wells RAMW01 RAMW02, RAMW03, RAMW04, RAMW05, RAMW06, RAMW07, and RAMW08.

Summary of Sampling and Tests

- Three process air samples were collected from the Phase 1 AS/SVE system effluent during the July 22, 2020, sampling events.
- Two process air sample was collected from the Phase 2 AS/SVE system effluent during the July 22, 2020, sampling event.

Work Plans and Other Deliverables Completed In Accordance With the CD

- The First Quarter 2020 *GMZ Monitoring and System Performance Report, Area 9/10 Remedial Action* (June 2020) was submitted in accordance with Section X, paragraph 30, of the CD and consistent with Section V of the Statement of Work (SOW).

Actions Scheduled for Next Quarter

The following actions are scheduled for the next quarter:

- Operation of the Phase 1 and Phase 2 AS/SVE systems will be in pulse-off mode (system in operation) from July 22, 2020, to approximately September 21, 2020.
- Operation of the Phase 1 and Phase 2 AS/SVE systems will be in pulse-on mode (system not in operation) from approximately September 21, 2020, to approximately November 21, 2020.

Percentage of Completion/Anticipated Delays

There are 39 specific deliverables or activities required to be completed as part of the CD. Some of these are ongoing activities and others, such as submittal of documents, require approval by the USEPA/Illinois Environmental Protection Agency to fulfill the requirements of the CD. To date, HSC has completed their current obligations for 28 of the 39 items, or 72 percent of the CD requirements. There are currently no anticipated delays to the schedule.

Modifications to Work Plans/Schedules Proposed

None

Activities Undertaken In Support of Community Relations Plan

No activities are required with regard to the Community Relations Plan at this time.